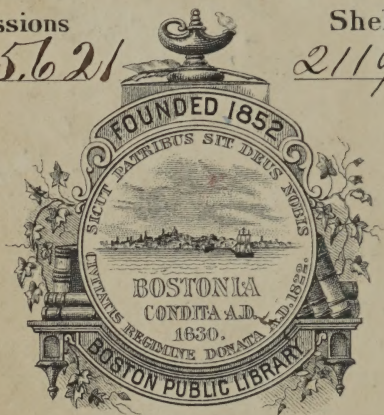


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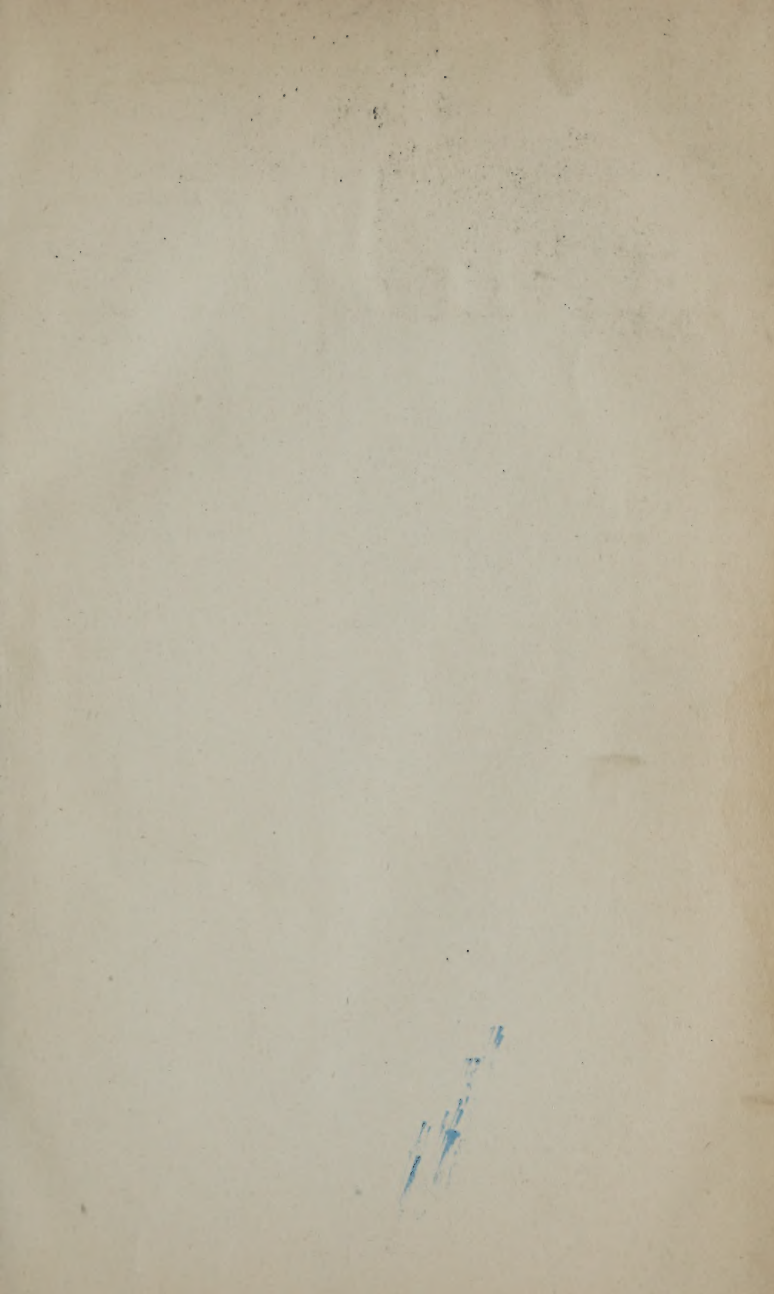
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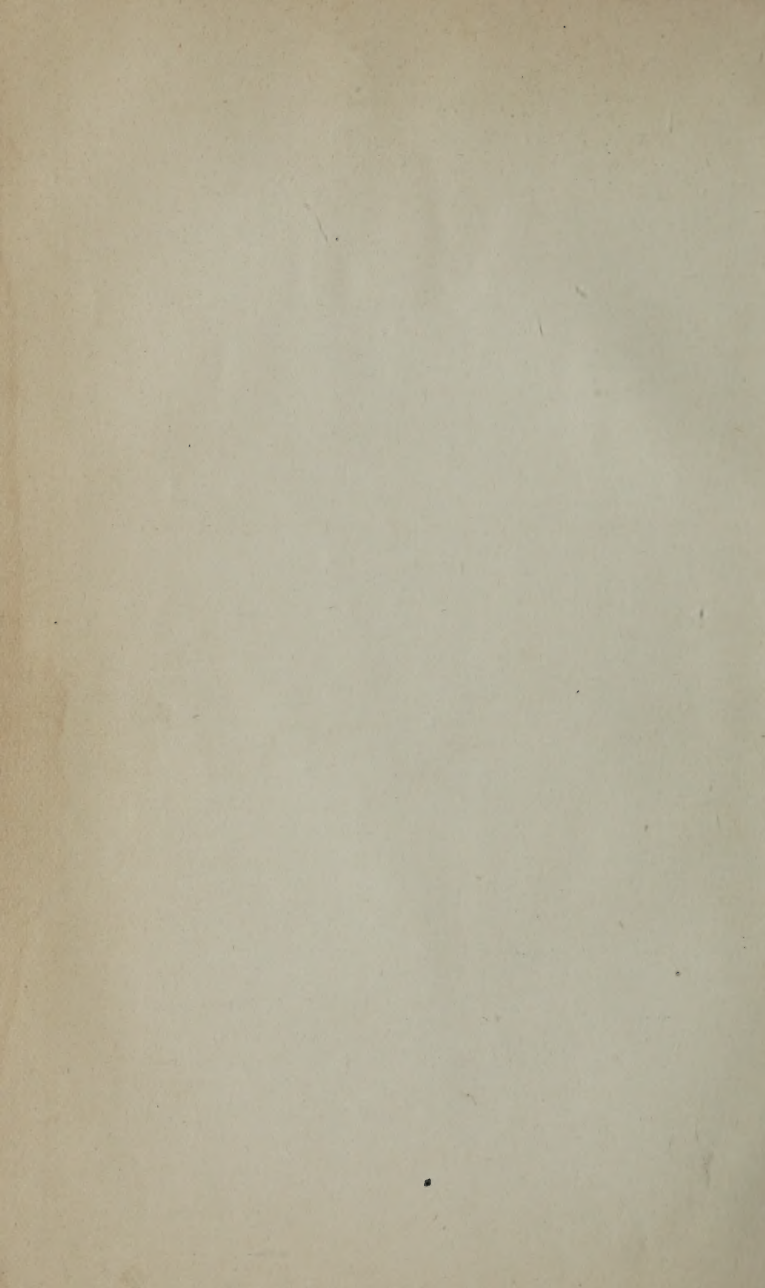
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Guest's Compendious Shorthand.

[ENTERED AT STATIONERS' HALL.]

THE MANUAL OF
COMPENDIOUS SHORTHAND;
OR,
UNIVERSAL VISIBLE SPEECH.

A Practical System of Steno-Phonography

SIMPLE ENOUGH FOR THE ELEMENTARY SCHOOL;
LEGIBLE ENOUGH FOR BUSINESS CORRESPONDENCE;
BRIEF ENOUGH FOR REPRODUCING VERBATIM THE FASTEST ORATORY;
AND SO COMPENDIOUS THAT A SINGLE PEN-STROKE AS A RULE
FULLY REPRESENTS A SYLLABLE.

BY EDWIN GUEST,

*Shorthand Writer and Journalist; Fellow of the Shorthand Society;
Corresponding Member of the "Association des Sténographes de Paris."*

LONDON:

THE AUTHOR, 64, IMPERIAL BUILDINGS, LUDGATE CIRCUS;
WYMAN & SONS, 74-76, GREAT QUEEN STREET, W.C.;
AND OF ALL BOOKSELLERS.

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THE fact that "Compendious Shorthand" is a really "Universal Visible Speech," because its basis is that "law of facility" which every human tongue obeys, becomes daily more and more manifest, as the following plain statement of facts will show.

FACT 1. In the spring of 1880 the author's first pupil, then aged under twelve, wrote in "Compendious Shorthand" an original story extending to about 1,000 words. The notes, after being written, were locked up, and remained for more than two years unseen by any one. As stated in the preface (page xviii.) their legibility, after that long interval, was conclusively demonstrated by the transcript.

FACT 2. Another pupil, not yet eleven, under my superintendence, undertook, on December 21st last, to teach two boys, aged respectively $5\frac{1}{2}$ and $3\frac{1}{2}$, to read English by means of my "Universal Visible Speech" signs. On February 21st I examined the pupils, and found the elder boy able to give the sound, without hesitation, of any possible monosyllable, formed of three or four elements, within the scope of the fourteen consonantal and seven vowel-signs learned. Neither child knows a letter of the ordinary alphabet.

FACT 3. The principles on which "Compendious Shorthand" is based were explained in a lecture given by me before "The Shorthand Society" and other stenographic associations last year. Referring to these Mons. L. P. Guénin, an eminent stenographer of the French Senate, and the author of several works on Shorthand, has favoured me with the following opinion :—"Your classification of characters is an excellent idea, and for the future the true basis of systems to be created. *En résumé*, I believe you are on the right path, and that your work will be very interesting. Your comparison of the different systems that have appeared up to the present day is striking, and I hope to bring it to the notice of the readers of the 'Bulletin de la Société de Sténographie' as soon as your work is published."

FACT 4. The author was recently applied to for instruction in "Compendious Shorthand" by Mr. A. H. Browne, an eminent Indian journalist and traveller, known throughout India as "Hadji Browne," an account of his famous exploit of making the pilgrimage to Mecca in the disguise of a native Hadji. He was often pre-

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B. H.

325,621

Mar. 28, 1883.

“Signs are visible words ; words audible signs.”—*St. Augustine.*

“Words are the images of cogitations, and letters are the images of words, but yet it is not of necessity that cogitations be expressed by the medium of words. For whatsoever is capable of sufficient differences and these perceptible by the sense, is in nature competent to express cogitations.”—*Advancement of Learning (Lord Bacon).*

“Every syllable should be answered by a single dash, and every word of one syllable by once setting of the pen to paper.”—*E. Coles (1674).*

TO
CORNELIUS WALFORD, ESQ., F.S.S., F.I.A.,
President of the Shorthand Society :

THOS. J. WOODS, ESQ.,
President of the Shorthand Writers' Association ;

AND
W. MULLINS, ESQ.,
President of the Phonetic Shorthand Writers' Association ;

IN GRATEFUL ACKNOWLEDGMENT
OF THE ENCOURAGEMENT GIVEN BY THEM AND THE THREE
IMPORTANT SOCIETIES OVER WHICH THEY PRESIDE
TO THE SCIENTIFIC STUDY OF THE STENOGRAPHIC ART,
THE FOLLOWING PAGES
ARE RESPECTFULLY DEDICATED
BY THEIR DEVOTED SERVANT,
THE AUTHOR.

PREFACE.

THE following pages are a summary of a larger work upon which the Author has been for some years engaged, and in which, when finished, will be given the results of a long series of investigations into the speed relations existing between the tongue of the orator and the hand of the "ready-writer," and into the varied developments of the graphic art; from the hieroglyphics to alphabetic writing, from the complex to the simple in alphabets, and from complexity in the Stenographic representatives of ordinary alphabetic symbols, to that great desideratum of the Graphic Art—the reproduction of every unit of sound by a single graphic effort or dash of the pen. Although the investigations are not quite concluded, the broad results have long been worked out, and on the basis of an analysis of all the available facts of language the Author could collect, he, some years ago, matured the alphabet of the system here presented, which, during the last three years, has been put to many severe practical tests. So much interest has been excited in the minds of scientific students of Shorthand by a few lectures given on the subject by the Author, and so many enquiries for a book of instruction have been received, that he has determined to publish the "Manual of Compendious Shorthand" as a book for teachers or for self-tuition. It will contain all that is necessary to be learnt for the practical acquisition of the art, leaving for a more elaborate work the scientific part of the subject.

It is perhaps necessary to say a few words with regard to the motives which induced the present writer to undertake so ambitious a task. The want was long felt by him of some simple

means of conveying to young minds a knowledge of foreign words and sounds by symbols so essentially different from the ordinary letters that no confusion in the use of them would be likely to arise in learning simultaneously two different languages—English as a subject of the ordinary school curriculum, and French or German as a special subject. The beautiful scheme called “Visible Speech,” invented by Mr. Alexander Melville Bell, though well calculated to impart the desired knowledge to mature minds, appeared much too difficult for children. The writer also considered it a necessary condition of such a scheme that the symbols, when learnt, should be available for further use in the period of educational training, and in the after career of the youth who had acquired them. The stenographic modification of “Visible Speech,” subsequently published by Professor Bell, gave promise of affording the teaching instrument desired, but after a short trial it was given up in favour of Phonography. By applying to the phonographic consonant outlines an extended vowel scheme which required the use of only two positions in place of three, certain good results were obtained, but the unscientific device adopted by Mr. Pitman of writing the second consonant in such combinations as *pl* and *pr* with an initial hook, and the first in such terminations as *ent* *end* with a final hook, often proved a stumbling-block to pupils. Unnecessary difficulties were created in expressing such French words as *prend* phonographically, the sequence of consonants as written being in the eyes of the beginner *rpdn* instead of *prnd*. This double inversion of the natural order of the sound elements led so often to difficulty in reading the outlines, after a short interval, that the hooks had to be applied otherwise than to express consonants which, in the great majority of cases, are either preceded or followed by some other consonant. This change necessitated others, and led for some time to the use of a mongrel kind of Shorthand of a nature which was far from satisfactory. But the partial success obtained demonstrated the fact that if a set of signs sufficiently simple to be employed later for ordinary stenographic purposes, while sufficiently comprehensive and distinct to express the various sounds of the five great languages of Europe, could be invented, a forward step would thereby have been realised towards the popularisation of the

study of foreign languages by Englishmen, and of English by foreigners. As the teaching instrument to be employed would in this case be of the highest utility after it had served its first purpose, not one moment of the time spent in the acquirement of the means of reading and writing would be unprofitably employed, and therefore the plan would not be open to the objection urged against the scientific and most admirable schemes proposed by Professor Bell (*Visible Speech*), and by Mr. A. J. Ellis (*Glossic*). The resolution to attempt the task was taken, and for a period of more than seven years has been persisted in with what result the world will shortly be able to judge,—it being the intention of the writer to follow up the publication of this small treatise by showing in what way UNIVERSAL VISIBLE SPEECH can be made applicable (*a*) to the acquisition of foreign languages ; (*b*) the teaching of children and adults to read their native tongue ; (*c*) the teaching of the blind ; (*d*) the teaching of deaf mutes to speak ; (*e*) as a simple means applicable by missionaries and travellers to the rapid and accurate reproduction of sound in unwritten languages ; (*f*) as a means of quickly discovering the philological relationship between words which have assumed unrecognisable forms in the ordinary spelling in passing from one nation to another, or from one generation to another ; and (*g*) as a means of preserving dialectic peculiarities which are fast disappearing.

Having resolved to make utility as a stenographic system the leading feature of the scheme, it became necessary to lay down the principles on which a stenographic alphabet should be formed. That it must be mainly phonetic admitted of no question, and that it must as far as possible be in harmony with the laws of philological change was also a settled point ; but in so entirely practical a matter as stenographic writing it appeared equally evident to the present writer that far more important than either the phonetic or the philological principle was the condition that every stroke must be made with the least possible expenditure of time and labour, and be rendered to the utmost possible extent expressive. The author found a general *consensus* of opinion among inventors of high repute that the most frequently used letters should have the easiest

lines, but the analysis of their alphabets constantly revealed the strangest departures from the principle enunciated. The frequency of letters and the facility of lines were equally matters of guess to a certain extent, or if any attempts were made to ascertain either, they were made in so unscientific a manner as to be scarcely worthy of attention. By Jeake, in 1748, and an anonymous author in 1763, the process of actual counting was employed to find out which letters were the most frequently recurrent, but the phonetic principle was neglected by both, and the results were therefore utterly unserviceable. The basis of calculation was also in each case far too narrow, the passages counted only extending to short extracts of 400 or 500 words from some single author or some single essay. The latter author analysed a few paragraphs from No. 5 of the *Rambler*, containing in all 1,616 letters, of which less than a thousand are consonants. Of these H, C, and G, which phonetically are very unimportant, had the large proportion of 19 per cent. in actual counting. But four-fifths of the *h*'s ought to have been distributed between *th*, *ch*, *wh*, and *sh*; all the *c*'s between *k*, *s*, and *ch*; and the *g*'s between *g* and *j*. The lines allotted to these consonants were therefore too good, and worthier letters were displaced by them. Many inventors relied upon the type-founder's bill for their proportions, but actual counting proves that, as regards certain letters, it is not a very good guide. The present writer was therefore compelled to resort to the laborious process of actual counting to obtain his data. Short extracts from Shakespeare, Bacon, Locke, Milton, Addison, Dr. Johnson, Hazlitt, Macaulay, Carlyle, Ruskin, and Kingsley; and passages from the speeches of Canning, Shiel, Lord Beaconsfield, Lord Derby, Dean Stanley, Mr. Bright, Mr. Gladstone, and other orators were counted; poetry, prose, religion, history, politics, ethics, and science all being represented; with the result that in 10,000 words (*and*, *of*, and *the* being left out because these common words have in most systems special marks), *S* was found to recur 2,886 times, *T* 2,700 times, *N* 2,543 times, *R* 2,175 times, *L* 1,316 times, and so forth down to *J*, *CH*, *Y*, and *Q*, which recurred only 198, 177, 168, and 33 times respectively. The necessary equations having been made on account of *ks* representing *x*; *ph*, *f*,

&c., the proportionate recurrences of the consonants stand thus : *S* 100, *T* 95, *N* 90, *R* 74, *L* 46, *M* 41, *D* 40, *Th* 33, *K* 26, *W* 25, *F* 25, &c., down to *J* 7, *CH* 6, *Y* 6 and *Q* 1. Thus *S*, *T*, *N*, *R* occur 359 times in the aggregate, to *J*, *CH*, *Y*, *Q* 20 times. Hence there is an obvious advantage in giving to the first four the best possible lines, and in making the last four wait until all the rest have been accommodated.

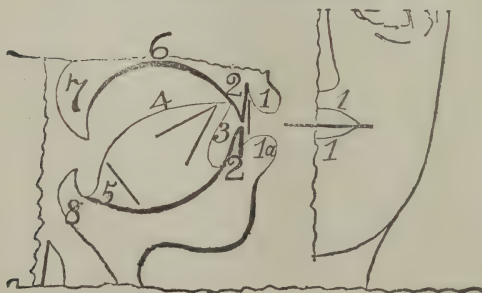
But it had to be settled which were the most facile lines. Byrom (1720) selected the horizontal line as the easiest, and gave it to *S*. He followed other inventors in allotting the perpendicular to *T*, giving as a reason that it was a very easy stroke to make. The German inventors, on the other hand, generally execrate the perpendicular, regarding it as the most difficult of all lines. With doctors differing to such an extent experiment had again to be called in to decide. As the outcome of a large number of separate experiments carefully conducted, the following points were perfectly demonstrated : (*a*) that the slope which in this system is given to *N*, *T*, *D*, and *ST* is at once the easiest, speediest, and most natural for those who write with the right hand ; (*b*) that any thickened line is a little less easy than the corresponding light line ; (*c*) that the curve is a little less facile than the corresponding straight line ; (*d*) that the shortest line in a given triad is more quickly made than either of the two which are longer ; and (*e*) that the least expeditious of the six directions employed is the diagonal from left to right. These facts are also capable of mathematical demonstration by applying the principle of the "parallelogram of forces" and other principles well known in mechanics.

The author's recent researches show that very nearly the same order holds good in the combinations of these letters with each other, the five consonants *s*, *t*, *n*, *r*, *l*, in frequency of junction again heading the list of combinations, both initial, medial, and final ; though their relative values are now slightly altered. Each line used in this and most other systems has received a value which fixes its position in the scale of facility, the most rapid line (*N*) having the maximum value of 100, and the least rapid, namely, the thickened and lengthened curve of the guttural group bearing the value of 52. The relative values of acute, right, and obtuse angles, as well as loops, rings, and

hooks in different directions, are all ascertainable on the same principles. The data thus obtained are not only useful to the present author in showing what to use and what to avoid, but, in the opinion of some of the most competent experts, both in this country and on the Continent, they will be a safe guide to other inventors in forming the basis of future systems.

Not the least remarkable fact with regard to the selection of the directions is that, although made from exclusively practical considerations, it harmonizes in every essential particular with the facts and theories of phonetic and philological science and the physiology of speech. In the following diagram it will be seen that the easiest lines are drawn at or near the tip of the tongue; the horizontal line, which occupies a middle position as regards facility, lies between the lips, and the perpendicular in front of the teeth, which are themselves perpendicular, while the back slope, which is the least facile direction, lies near the root of the tongue, parallel to the line formed by the epiglottis when raised to speak and breathe. The fact that the two easy lines are parallel to the upper and under surfaces of the tongue, when it is in the positions for producing *S, N, T, R, L, D*, is a very remarkable and significant one to which reference is made further on.

THE VOCAL MECHANISM.



The right half of the diagram shows a front view of the lips, and the horizontal line they form when closed. The left half of the diagram is a sectional view of the cavity of the mouth; the unshaded parts representing hollows, the lightly-shaded lines the flexible organs (3, 4, 5, the tongue; 1 and 1a the lips); and the darkly-shaded lines, the teeth 2, and hard palate 6, which are not flexible. It is evident, from its form and position, that the tongue has more mobility than any other organ, and has a greater range of vibration. It is also evident that of all parts of the tongue the tip can describe the longest arc, and can therefore describe a given arc with less mechanical effort than any other portion. The tip of the tongue may be regarded as the free end of a lever of the third kind, and therefore it is the point at which rapid motion will be produced at a mechanical advantage. The root of the tongue (5), being at the fixed end of the lever, rapid movement there would be produced at a mechanical disadvantage. The positions most easily reached by the tongue, which commands the whole arch of the palate, are those in which the signs for *R* and *L* are placed, with the intermediate spaces, and *S*, *T*, *N*, *R*, *L*, *D*, are precisely the sounds formed by the tip of the tongue in these positions. Neither pressure nor vibration are required for the first of these, a gentle whisper (or breathing) producing *S* or *Z* when the tip is placed nearly in the position of *R* (∧), and therefore *S* necessitates the least expenditure of effort; *N* and *T* require a light pressure but no vibration, while *L* and *D* require longer and heavier contact; *R* requires vibration only, but no contact. In short, if the mechanical effort involved in the production of these six sounds could be measured, it would probably be found that, passing from the easiest to the least easy, they would be placed precisely in the same order (*S*, *T*, *N*, *R*, *L*, *D*) in which they come upon counting their recurrences in speech. Again, *TH* is more easily formed than *L*, but less easily than *R*; but if the recurrences of *the* be added, the value of *TH* rises from 33 to 53; or precisely to a position between *R* and *L*. *Sh*, on the other hand, requires more effort than *L*, and we find it recurring only about half as frequently. Finally, we find the compounds *J*, *CH*, and *Q*, all requiring the co-operation of two organs, and involving much greater fatigue in their frequent

and rapid utterance. We should expect to find *Q* the least frequent, the motion to produce it extending from the innermost point, the root of the tongue, where its sound originates, to the outermost organs, the lips, where it is finished with the *w* sound. On actual counting, *Q* stands at the bottom of the list, with a single recurrence against every 100 recurrences of *S*.

The vocal mechanism being the same in all men, similar efforts will produce similar effects, hence, with certain exceptions, this preference for the easy consonants is seen in all languages. The author has, therefore, been led to the conclusion that the movements of the tongue, as well as those of the hand; the laws followed by philological changes; the phenomena of phonetic change; the preferences of the eye, the ear, the hand, and the tongue, for certain forms, sounds, and motions, rather than others; and the tendency of each succeeding age to abridge further and further the labour involved in all operations, mental as well as physical, are merely so many different manifestations of one universal law, which he has ventured to term the "law of facility." In the eloquent words of Lord Bacon ("Advancement of Learning," Book II.), "Is not the delight of the quavering upon a stop in music the same with the playing of light upon the water?"

'Splendet tremulo sub lumine pontus.'

Are not the organs of the senses of one kind with the organs of reflection, the eye with a glass, the ear with a cave or strait, determined and bounded? Neither are these only similitudes, as men of narrow observation may conceive them to be, but the same footsteps of nature, treading or printing upon several subjects or matters." It seems almost an axiom to say, that "Whatever is easiest is best." It is very probable that this law has before been formulated in different ways, according to its different manifestations, but the present writer is unaware whether it has ever been stated before as a "law of facility in speech." The terms in which he states it are the following:—*Due allowance being made for tradition and custom, and for peculiarities of history and race, the sounds most easily produced in a given language will be the most frequently employed and will furnish the best models of eloquence in that language.*

☞ That prince of phoneticians, Mr. A. J. Ellis, calls the notion

of expressing cognate sounds by lines having corresponding relations "a pretty but fanciful idea." It is perfectly true, as he further points out, that "none but an imaginary relation exists between the effect of a sound on the ear and that of a symbol on the eye." Perhaps the only real advantage of forming such analogies is to help the memory of the pupil and facilitate the work of the teacher, the association of a straight line with the line of the lips effectively memorizing the fact that the labials are in the horizontal direction. Similarly with the perpendicular (the direction of the teeth), chosen for the dentals, and the diagonal line formed by the underside of the tongue in producing *T*, *D*, and *N*, and the flatter diagonal upward line formed by the top side of the tongue in pronouncing *S*, and so forth. The pictorial relations may be merely fanciful, but it is far otherwise when the *modes of action of the tongue are compared with the modes of action of the hand*. Both tongue and arm are levers of the third kind, and a motion advantageously made by one will have its corresponding advantageous motion in the other. Without, in this connection, discussing whether there is not some actual relation between the diagonal lines, which the surfaces of the tongue form in producing the frequent consonants, and the diagonal lines which are the easiest for the right hand to produce (a point quite debatable), it is only necessary to point out, that if the hand is making its easiest lines, when the tongue is producing its easiest sounds, the hand must be working to the greatest advantage. That the lines described in both cases are diagonal and similar, may, or may not, be an accident, but whether they are similar or dissimilar is not important, provided that what is the most facile in the one case corresponds to that which is most facile in the other. Signs which symbolize the movements of the organs of speech or the forms they assume in regard to each other are not necessarily good in a stenographic alphabet, however good for ethnical purposes. They may indeed be very bad as stenographic symbols and must be so unless it happened that the organs could be symbolised exclusively by simple lines. To seek in the modes of action of the hand (the writing organ) and those of the tongue (the speaking organ) which are evidently mechanical instruments of

the same class, is on the contrary neither fanciful nor unscientific, and was *à priori* likely to lead to good results, the cardinal principles of stenography (facility and expedition) being duly borne in mind. This is the great distinction between the efforts of the present author to produce a universal natural alphabet, of stenographic brevity, and those of his many predecessors.

The practical utility of a selection of signs on the principle of the proportion of recurrence will appear from the following example :—Let the least important letter, *Q*, be allowed to have the best line, whose value is 100, and *S* the worst line, whose value is 52 ; then in any given number of words since *S* would occur 100 times to *Q* once, the two values when *Q* occurred would be (*Q*) $1 \times 100 = 100$; (*S*) $100 \times 52 = 5,200$; total, 5,300. But reverse the conditions, giving the best line to *S* ; then the sum would be (*Q*) $1 \times 52 = 52$, and (*S*) $100 \times 100 = 10,000$; total, 10,052. The difference in favour of the latter arrangement would therefore be 4,752 ; the difference between the worst and the best selection would, in fact, be the difference between the values of the worst and best lines, or in the proportion of 48 per cent., since $100 - 52 = 48$.

COMPENDIOUS SHORTHAND is LEGIBLE, SIMPLE, COMPREHENSIVE, and EXPEDITIOUS, for the following reasons :—

(a) LEGIBLE.

1. Because every letter of the common alphabet has its own distinctive sign, either phonetic, or graphic, or both.

2. Because vowels are either expressed by connected or detached marks, or copiously indicated without writing, either by the form of the consonant outline or by position. By the detached marks every shade of vowel sound can be expressed, and such marks only require the distinction of two positions.

3. Because in any syllable every combination of consonants is fully expressed with a single primary sign, and therefore the place of all vowels may be indicated by the form of the outline.

4. Because the rule of vowel position is only applied to familiar words, and is in all cases strict and unvariable.

5. Because, if a mistake is made in thickening, it only affects a secondary, and not a primary consonant.

6. Because, if a mistake occurs in curving, it is again a secondary, and not a primary error.

7. Because the difference in the perceptibility that can be made in the *breadth* of a character is necessarily small in comparison with the differences that can be made in *length*, which may be rendered as perceptible as the student wills.

8. Because, if a mistake be made in length, the consequences cannot be serious, since the wrong character is sure to be closely related to the right one, which will be readily suggested by it. This arises from the strict phonetic and philological grouping of the signs, not only the members of each group, but the groups among themselves having strong and natural affinities.

9. Because the outlines show the elements of sound in their proper sequence. The outline of *plant*, for example, exhibits *plnt*, and not, as in Phonography it would really be written, *l* (hook), *pt* (halved stem), *n* (hook), or *l pt n*.

10. Because, the very expressiveness of the marks quickly reveals an error, which, if one of commission, will usually express a great deal too much, and if one of omission will express a great deal too little.

11. Because, where no essential element is ever left out of the outlines without indication, it would be strange indeed if the writer failed to read his notes.

12. Because the inherent brevity of this system is so great that it can never be necessary to *starve* a word by robbing it of any element necessary to its adequate expression, and no curtailment of words which will make their recognition difficult in transcribing is considered legitimate.

(b) SIMPLE.

1. Because the sound elements are always written in the order in which they are heard.

2. Because every simple single sound is expressed by a simple single sign in full writing.

3. Because, as a general rule, *sounds within a determined degree of likeness are represented by signs within a determined degree of likeness*. All monosyllables are written as monograms,

showing at a glance what they are, and most dissyllables are written in two strokes, whilst polysyllables, though written briefly, always show of what nature they are.

4. Because, generally, any one sign only expresses one sound.

5. Because every properly-formed sign is clear, legible, and distinct from every other sign.

6. Because exceptions to rules are nearly eliminated, the few departures permitted for practical reasons being themselves subjected to rule.

7. Because the second and succeeding consonants are added to the primaries in a uniform, natural, and systematic manner, the coalescents so formed being perfectly recognisable and distinct, though made with a single pen-stroke.

8. Because the principles adopted are mostly of universal application, and the few which are not so (these may be termed devices) are employed to the full extent of their capacity, to secure familiarity.

(c) COMPREHENSIVE AND EXPEDITIOUS.

1. Because nearly all those common words, 300 of which make up about three-fourths of every speech, are adequately expressed in a single pen-stroke.

2. Because every thousand pen-strokes in this system represent more than eleven hundred syllables.

3. Because the ineffective movements or lifts of the pen are considerably fewer than one per word.

4. Because the outlines are easy and flowing, and the great majority of the junctions of a favourable character.

5. Because the most frequently-recurring consonants have the most expeditious signs, both for primary and auxiliary characters, and are generally joined, when necessary, in the easiest and most natural manner.

6. Because all the consonants usually expressed by perpendicular and back strokes may be otherwise expressed, except a very small number, so that 95 out of every 100 stenographic elements may be written with their primaries in the three easiest directions.

The author would gladly give due honour to those of his predecessors who have furnished him with hints, but, in the great diversity of stenographic signs and devices, which have been proposed by successive generations of inventors, it is often difficult to find out to whom honour is due. To the phonetic works of Professor Bell, Mr. A. J. Ellis, and Mr. Isaac Pitman, he undoubtedly owes obligations ; and in the matter of stenographic expedients, he ought, perhaps, to make his deepest bow to Thomas Moat. For certain reasons he refrains at present from claiming as original any of the details (his claim to originality for the work as a whole will scarcely be disputed), for so many of the expedients which he had fondly deemed original were subsequently found by him, in one form or another, in the works of previous inventors, that he considers it very hazardous for any man to claim anything of the kind as original, however original it may be so far as he himself is concerned.

The advent of phonography was the commencement of a new era in the history of Shorthand. In the absence of that system it would have been hopeless to propose the new advance towards simplicity and expressiveness here set down. The success of phonography has proved that the thickening, shortening, and lengthening of lines are perfectly practicable and legitimate expedients in stenography ; has set at rest the question of the practicability of the sloping curves, of which the old inventors seem to have been so terribly afraid, and has established in England, what has been admitted unreservedly for generations in France and Germany, that at least four different lengths of lines are distinguishable. The present writer has ventured on a fifth length, but, knowing that such an innovation would excite the opposition of the numerous adherents of the no-progress policy, he took care, before proposing it to the world, to put it to an exhaustive practical test extending over several years. One of his pupils, then aged twelve, who acquired the alphabet in 1879, wrote in the spring of 1880 an original story with its characters. The author took possession of the book, and after an interval of more than two years, during which the notes were not seen by any one, a transcript, on being demanded, as a test for legibility, was

supplied by the pupil promptly and without assistance. Every word was correctly transcribed except three, two of which were originally wrongly written. In rapid writing, the exact lengths are often not maintained, but with the strict grouping of related sounds which has been adopted the error is usually no more serious than that of writing *vel* for *well*, which the context must at once point out as an error. During nearly four years' practice of the system, the author has found scarcely any case in which a wrongly-written form would lead to an actual "clash," *i.e.*, to the reading of a wrong word, which would make sense when read with the context.

The fulness with which the sound elements are expressed renders the note-taker secure against the dangers which in other systems often beset him; the briefness of his writing ensures to him plenty of time to make the signs accurately when reporting any ordinary speaker. In proof of this take Exercise XIV., which consists of the Lord's Prayer, written without reporting contractions, and given as a model of the fullest and easiest style of writing "Compendious Shorthand." The elements as expressed in stenotypy are as follows, the comma representing a vowel either necessarily implied or indicated with a certain exactitude, and a dot a vowel less definitely indicated. The words in italics are sign-words for special contractions all of which are very obvious.

'r₃ F'THr *which* 'rt 'n'V^{an} h'l'W'd B'TH^a *name* TH' K^{and}'m
come TH'W'l B'D'n 'n'rTH ^aST's 'n'V^{an} *Give* 's *this* D^a 'r D'L
Br'd *and forgive* 's 'r D'ts 'sW^a *forgive* 'r₃ D't'rs *and* Led 's N't
^eNt^a T'MPt'sn B't D'IV'r's *from* 'V' 'M'n

The Lord's Prayer in this form contains 53 words or 70 syllables, and in the above specimen they are expressed in 67 inflections of the pen. It will be seen that every consonant element except *h* in *heaven* and *g* in *kingdom*, and every vowel element except one (*e* in *father*) is distinctly represented. To reproduce these elements in a manner as full, though considerably less exact, in "Common Shorthand" (recently published) requires 119 pen-movements against the 67 pen-movements of "Compendious Shorthand." If, as is claimed, 119 pen-movements for 70 syllables represent a speed of from 100 to 120 words per minute, 67 pen-movements for 69 syllables would

represent a rate of from 180 to 216 words per minute, which would therefore be that of the fullest and least contracted style of "Compendious Shorthand." The Lord's Prayer having a great proportion of common words is, however, too favourable a specimen, and the average rate would therefore not be so high for either system by about 10 per cent. The rate of 160 words per minute is accounted fast speaking, and therefore on all but the rarest occasions the writer of "Compendious Shorthand" would be taking his notes with the greatest deliberation and consequently with accuracy. We have seen that they would be as fully expressed as in common long hand; hence though slight peculiarities of style might characterise the notes, yet, if they were full and tolerably accurate, those of any writer of the system could be read with unfailing certainty by every transcriber able to read the system, just as a clerk can read any of a hundred letters in different varieties of handwriting. The great problem of providing a means of reproducing speech as uttered so as to be transcribed by another than the writer IS CONSEQUENTLY SOLVED BY "COMPENDIOUS SHORTHAND."

Following up a suggestion thrown out in a recent address by Cornelius Walford, Esq., the President of The Shorthand Society, a section on "Mental Reading" has been added. For this and other valuable hints, the author gratefully acknowledges his indebtedness to the President. With the permission of a distinguished member of the Council of that society, Dr. Westby-Gibson, a portion of a very tuneful song, "England," from a small volume of "Thoughts in Verse" recently published by him, has been reproduced as Exercise XV. For occasional hints, suggested by the learned doctor's wide knowledge of "early systems," the author's thanks are also due.

To Mr. Pocknell (author of "Legible Shorthand"), a well-known phonographer; Mons. Guénin, of Paris (author of "Cours de Sténographie"), a writer and teacher of the system of Conen de Prépéan, and a revising stenographer of the French Senate; Mr. J. F. Deeble, who writes an improved form of Gurney, devised by himself, and to many other gentlemen of mature experience in various systems, the author tenders his grateful thanks for their co-operation in working out some of the problems he had undertaken to solve, and for their valuable advice. To those who may be disposed to condemn such

principles as they may find new in this work simply because they are new, the dignified reproof may be applied which was given by the immortal Bacon to the no-progress party of his own day, "As for the possibility, they are ill-discoverers that think there is no land when they can see nothing but sea."

Of the opposition of one such "ill-discoverer" the author is assured beforehand, but from the peculiarity of this gentleman's views, opposition from him may perhaps be regarded as a higher testimony to the value of the improvements herein suggested than approval would be. The paramount consideration which governs the stenographer's art, *facility* or *despatch*, is so completely set at nought in an alphabet which has appeared in his name during last year, that a work like this, which endeavours to fully satisfy the *imperative* condition, must of necessity be distasteful to him. In the alphabet referred to it is gravely proposed to represent the four very common consonants *l*, *m*, *n*, *r*, by signs involving nine movements of the pen, a number in excess of that suggested by any English inventor during three centuries. In a speech of one hour Mr. Gladstone utters about 7,000 words, and it will be found that the four letters named recur rather more than 5,000 times, in the aggregate, in a speech of that duration. A majority of the reporters in England and America would only require about 5,000 pen movements, or one per letter to represent these elements but our "ill discoverer" would compel us to employ 11,250 pen-movements to express them, his average being $2\frac{1}{4}$ per letter or nine for the four letters, viz., three for *l*, two for *m*, two for *n*, and two for *r*. If he is held to be a benefactor to the human race who makes two blades of grass grow where only one already grew, the man who makes one graphic sign express what it has hitherto required two to do will perhaps be esteemed a benefactor by stenographers; but what must be said of him who would compel them to employ nine marks to do the work which is already done everywhere with four? An alphabet which so completely ignores the necessity of economising material and involves so reckless a waste of effort represents not so much a "no-progress policy" as a "policy of reaction."

Manual of Compendious Shorthand.

INTRODUCTORY SECTION.

FUNDAMENTAL PRINCIPLES.

1. **E**VERY consonant or vowel sound should require but one pen-movement for its adequate representation in Stenography.

The signs most easily formed should be allotted to those consonants which in English are produced by the vocal organs with the greatest facility, these being found to be the most frequently recurring consonants in the language.

Subject to these two principles, each alphabetic character should, if possible, be suggestive of some portion of the symbol by which the corresponding sound is represented in the ordinary written or printed alphabet.

2. In this system of **VISIBLE SPEECH** every monosyllable in the English language, when not expressed by a single dash of the pen, requires only a single primary consonant, the longest monosyllables being, consequently, recognisable at a glance as units of sound.

Each of those very common words in the English language, 60 of which make up more than one-half of every ordinary speech in English, should be, and in this system, is *adequately* expressed in a single pen-stroke.

3. The maximum power of the hand (except in phenomenal instances) is 290 pen-strokes per minute. Rapid orators can utter from 260 to 320 syllables per minute. Hence, no system in which, on the average, more than one stroke per syllable is required, can reproduce *verbatim* (except with a heavy burden to the memory), this description of oratory. In "Compendious

Shorthand or Universal Visible Speech" the average number of pen-movements required for the *adequate* reproduction of the sounds uttered is considerably below one per syllable.

4. The specimen referred to in the following table is given at page 18. It is very fully written, the possible reductions which a reporter would introduce amounting to about 15 inflections. The passage can, therefore, be expressed adequately enough for the expert in 112 inflections, or $8\frac{1}{2}$ for every 10 syllables. The table shows the comparative merits of "Compendious Shorthand," and six of those published in competition under the circumstances referred to below, in pars 38 and 39.

NOTE.—The results in the last two columns of the table must be considered approximative only as regards some of the systems, because a scarcely sufficient number of proofs of the marks that can be made per minute in them have yet been available. It is possible that even a greater allowance than 10 per cent. should be made in favour of the three long systems, but the author believes that allowance enough and not too much.

5. The alphabet of "Compendious Shorthand" being perfectly simple, expressive power may be gained by curving, thickening, and lengthening to such an extent that, except for very high rates of speed, no great amount of abbreviation is necessary, but with alphabets which are not simple, and in which the available stenographic material has been badly utilised, many elaborate abbreviating devices are subsequently required.

In this system the abbreviating devices are reduced to a very small number, but they are extensively applicable, and always suggestive.

The full application of these devices as well as the development of a vowel scheme which provides for all English and some foreign sounds and the details of a method of employing "Compendious Shorthand" in the teaching of reading to children and in the teaching of foreign languages are subjects reserved for future treatment.

6. The system adopted in the instructions is specially adapted for self-tuition and for young students, the main principle being that of presenting only one difficulty at a time. The simplicity of this plan is sufficiently attested by the fact that one of the

"FAIR FIDDLERS."

Systems Compared.	No. of Pen Strokes.	No. of Lifts.	No. of Stenographic Efforts.	Proportion of Efforts per Syllable.	Syllables per Minute.	Words per Minute.	Remarks.
Compendious Shorthand ...	127 ...	65 ...	192 ...	1.50 (435) ...	290 ...	193	Words in the specimen 85.
Phonography ...	... 169 ...	65 ...	234 ...	1.82 (435) ...	240 ...	160	Syllables do. 129.
Legible Shorthand ...	... 169 ...	80 ...	249 ...	1.93 (435) ...	225 ...	150	Efforts per min.
Alethography ...	... 168 ...	80 ...	248 ...	1.93 (435) ...	225 ...	150	Comp. Sh. } Legible do. } 435
Janes (Taylor improved) ...	... 220 ...	88 ...	308 ...	2.40 (475) ...	198 ...	132	Phonog. } Alethog. } 435
Gurney (improved) ...	... 218 ...	94 ...	312 ...	2.41 (475) ...	198 ...	132	Gurney } Janes } 475
Taylor (Odell) ...	... 248 ...	107 ...	355 ...	2.75 (475) ...	173 ...	115	Taylor }

NOTE.—Col. 1 gives the number of effective pen movements; Col. 2, the lifts or ineffective movements; Col. 3, the sum of Cols. 1 and 2, expressing the number of mechanical efforts; Col. 4 gives the proportion of efforts per syllable, followed by the maximum number of efforts per minute; Col. 5 gives the result in syllables per minute, the maximum efforts being divided by the proportionate effort; and Col. 6 expresses the same in words per minute, $1\frac{1}{2}$ syllables being allowed per word. An allowance of efforts is made in favour of three of the specimens because the marks of the older systems can be written about ten per cent. faster than the more modern ones.

author's pupils, aged 14, is teaching the system to a child of 10, reading and writing exercises in French being included in the course of study.

7. Phrases are more easily retained in the mind than isolated words, and words more easily than letters, which in the language of the old philosophers are their images, and as a consequence the author has found an immense advantage in teaching his system (especially to very young pupils) by a method analogous to the Hamiltonian system of teaching languages, which consists mainly in presenting to the mind "concrete instances" before "abstract principles," and in deriving the latter from the former by the analysis of easily-remembered examples.

8. In a number of lectures given by the author, it has been shown that there has been a constant and remarkably regular process of development in graphic signs, from the slow and cumbrous object-pictures which were the earliest forms of writing ; that alphabets, in obedience to some universal law, became simpler and more expeditious from age to age ; that stenographic alphabets, in obedience to the same law, were evolved from the common alphabets ; that the latter, commencing with complex forms, have developed new phases of simplicity in cycles of about sixty years ; and, in short, that the inevitable tendency of stenographic signs is towards the utmost simplicity, consistent with the possibility of distinguishing between the different symbols used. But among other tendencies clearly marked in the course of simplification, was the tenacity of life exhibited by signs that were suggestive of some ordinary alphabetic symbol, even when they required the expenditure of two or three pen-movements for the expression of one sound. (Z) for *z*, (Y) for *y*, (+ and ×) for *x*, (Λ) for *v*, and (∫) for *s*, are a few instances (to which many others might be added) of pictorial signs holding their ground for centuries, against the simple geometrical lines by which they have been eventually supplanted. But when a sign was discovered at once simple and pictorial, it quickly conquered for itself a permanent place in nearly all succeeding stenographic alphabets. The vertical curve (C), for example, has always been in high favour as a symbol for *c*, and will probably never fail to find admirers

among those who do not exclusively adopt the phonetic principle. Its popularity arises from the fact that it is suggestive as well as simple. The bow shape is a traditional characteristic of the hard sound of this letter from the earliest Hebrew period, and even from the hieroglyphic period which preceded it. It is, therefore, a principle of "Compendious Shorthand," as stated in paragraph I, to select suggestive and traditional signs when they can be reduced to a perfectly simple form. The following are examples :—

The dot for *C* is suggestive, being a development from the *head* of the small *C* of common type. It is traditional both for *C* and *Q*, the hieroglyph which originated *C* being the *head* of a camel, and that which originated *Q* being the *head* of a man. As these dots must be made carefully round ; they are not very expeditious, but they are very valuable signs, because although they have no analogy with the group of signs (the gutturals) to which they phonetically belong, they appeal instantly to the eye, which is better than being phonetic. The pictorial principle, the leading one with the old Stenographers, ought to be retained even in a system mainly phonetic, where it can be done without too great a sacrifice of facility, that master principle which should guide every Shorthand inventor.

The symbol for *I* is referred to in par. 43 as the *iota* of the Greeks. The selection is in accordance with the fitness of things in every way, for it represents one corner of the human eye, the Egyptian hieroglyph from which the Greeks derived their character. It has the sound of *ee* in almost every language except the English, and this being in nearly all languages the most frequent of sounds, it has almost universally the smallest and most rapidly formed character, and in the Hebrew and other alphabets, the symbol used is the very embodiment of the ideas of rapidity and sharpness. The diphthongal quality of its English sound is not nearly so frequently heard as the simple quality of *ee*, which it has in other languages, and, therefore, in "Compendious Shorthand" the *ee* sound has the vertical *tick*, which is more facile, and which symbolises rapidity even more distinctly than the small vertical curve. The perpendicular line has always been a prevailing characteristic of both the *epsilon* and *eta* of the Greeks. In English we attempt to

express a variety of sounds by different combinations of *E* with other vowels.

The ring was a marked characteristic of the Samaritan *S* and of the Greek *Sigma*. As a Shorthand sign for *S* it appears to have been first used by Farthing, 1654, since when it has been adopted by about one out of every four Shorthand inventors.

The Roman *A* furnishes us with two signs, one for each of the two principal sounds of that letter in English, viz., *a* as in *ale* and *ah*. The first sound is represented in the detached vowel scale by the smallest possible part of the left leg of the *A* and the second by the horizontal bar (*see* par. 48 *infra*).* The traditional characteristics of other symbols of "Compendious Shorthand" are referred to in pars. 17, 19, 21, 23, 43, and 53.

9. The tick forms the basis of the vowel system. Three are employed both as detached vowel-marks, and as vowels to be written in the outlines along with the consonants. In position above the line (or when detached near the top of a stem, as just stated) they signify *ee*, *ai*, *ah*, which are the sounds of the three vowels of the upper series; when below the line, or near the bottom of a stem, they signify *oo*, *oh*, and *au*, the three vowels of the lower series. When detached, a distinction is made between the long and short sounds of the vowels by a difference of thickness, the heavy tick always representing the broad vowel sound. The vowel sound described in par. 81 as the neutral vowel is represented by a dot (or minute ring if a pencil is used). It is also referred to as the universal vowel (pars. 76, 77), which may be used medially, as an attached sign, to signify any vowel whatever. When detached it is placed centrally near a stem. The dot, or dit, when used in an isolated position, represents the three commonest words of the language,—*the*, *and*, and *of* (pars. 42, 53).

10. The top of a stem is always the point where it begins, and the bottom that at which it ends, whether written upwards or

* The actual reason of the selection of the diagonal for the *ai* sound of *A* was not, however, its alphabetic traditions. The perpendicular and horizontal lines were so selected, the other falling in naturally, because the sound of *ai* lies half way between *ee* and *ah*, as the diagonal line lies half way between the perpendicular and the horizontal lines.

Fundamental Principles.

downwards. After a stem always means on the left hand, and in front of a stem always on the right hand; the reader in distinguishing right from left always supposing himself to be walking along the line in the direction in which it was traced by the hand. In describing the direction in which hooks or rings may be attached, it is most convenient to refer to the direction in which the sun moves. "Against the sun," is the same as turning to the left when walking along a line, and "with the sun" corresponds to a "right turn." Where a hook or curve may be written on either side of a line, it must be made in the easiest direction, which is generally "with the sun" at the beginning, and "against the sun" at the end, of a stem; where it has its own proper side of the line, a final hook or ring must always turn in its proper direction, whether in commencing or ending. The hook for 'm, for example, always turns "with the sun," whether initial or final. The initial hook for 'l, and the final hook for 'f ('v), always turn "against the sun," whether to a stem written upwards, downwards, or horizontally. These directions being invariable, greatly facilitate reading. The stem signs are the primary characters of the alphabet, the hooks and rings the auxiliary characters.

11. When a primary consonant is to be indicated, a capital letter will be used; and an auxiliary or minor consonant will be indicated by a small letter. Thus, *Centuries* (p. 18) is expressed by *CNTTrS*, its three elements being primaries. The coal-escents will be represented by small letters except in the case of *NT*, which is itself regarded as an alphabetic sign.

12. The inherent brevity of "Compendious Shorthand" renders the employment of arbitrary or non-alphabetic characters entirely unnecessary, and the following abbreviating devices common to many other systems are not regarded as legitimate—the omission of words from sentences without indication of the fact, the omission of initial vowels without indication, the omission of final and broad medial vowels in any words which are not very common, and speaking generally, the omission from words of any important sound element without leaving some distinct clue, except in the case of words of the commonest occurrence. The enormous power of expression possessed by this system is not nearly reached in any other.

13. "Compendious Shorthand" is consequently eminently legible, at the same time that it is extremely brief. Indeed in the case of the great majority of those who will learn this system the extreme brevity attainable, which extends, according to calculations made on a sound basis, to 1,100 words per five minutes (the limit of oratorical power), will not be necessary, because by following out the principles no farther than into those obvious applications of them which a comparatively brief period of tutelage will necessarily suggest, a speed may be attained which surpasses that of the briefest and most complicated systems. A rate of 100 words (*i.e.* about 50 in most systems) should be readily attained.

14. The five directions of lines usually recognised in Stenography provide fifteen straight simple lines for the primary consonants, and three more are obtained by striking the easiest slope upwards as well as downwards. The three lines in each triad are distinguished by length, the shortest being made one-tenth, the medium two-tenths, and the longest three-tenths of an inch in length. Adequate means of distinction between the different directions are provided. The shortest character in each triad, or group of three, is more quickly made than the longest, and there is generally a corresponding difference in the duration of effort required to produce the sound represented. In the group P B M, for example, M is a sound of longer, and P of shorter duration than B. Hence, M must have a longer, and P a shorter line than B.

14a. The directions have varying numerical values according to the degree of facility and the speed with which the lines can be written, and the three characters of each triad also slightly differ for the same reason. The easiest direction is the slope downwards from right to left, with which we usually write the downstrokes of *n* in longhand. The value of the shortest line of the triad / / / is the maximum 100: no other lines whatever reaching that maximum. The longer lines in this group have the value of 96 and 93 respectively.

14b. Numerical values are also given to the consonants in proportion to the frequency of their recurrence. The maximum of 100 is given to S, T following with 95, N with

90, and the other consonants in order of recurrence, down to J 7, Ch 6, Y 6, and Q 1.

14c. To secure the maximum of expressive power with the minimum of manual effort, to the group of most frequent consonants the best line has been allotted, and so on in order. The phonetic affinities of the sounds have, however, not been overlooked in the allocation of the signs.

15. In committing the characters to memory, the best order to follow is the natural order proceeding from the labials, or those which are formed by the lips (the outermost portion of the vocal mechanism) to those produced at the back of the mouth or top of the throat, which are called gutturals.

THE PRIMARY CONSONANTS.

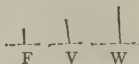
GROUP I.—LIP LETTERS OR LABIALS.

— — —
P B M

16. The consonants P B M form the first phonetic group, being produced by the opening or closing of the lips. These, almost of necessity, would be the first articulations of the first man, and they prevail in the majority of the most primitive words in the oldest languages of the earth. Papa, baba, mama, may be regarded as universal words. We may most fitly, therefore, begin with this group.

17. The horizontal direction is given to this group in accordance with the principle of recurrence (pars 2, 13, & 14), but there are several other reasons why it is appropriate. The horizontal line is formed as the lips come together to produce p, b, and m, and that line is a traditional characteristic of these letters in the hieroglyphs and early alphabets, particularly the Greek, where Π = P. In respect of frequency, P B M hold a middle position; and the horizontal line, being neither the least easy nor the most facile, also holds a middle position, among lines. The recurrent values are P 25, B 25, M 41, total 91. The direction values are P 86, B 84, and M 82.

GROUP II.—TOOTH-LIP LETTERS.



18. The tooth-lip letters, or denti-labials, are perpendicular in direction, or very nearly so. The natural order of procession of the various parts of the vocal mechanism, from the lips to the back of the mouth, brings the tooth-lip letters into the second place. The English w, unlike the German w, does not require the co-operation of the teeth, but that it should be grouped with v, admits of no doubt. The vulgar substitution of "vich," "vell," and "werry," for "which," "well," and "very," sufficiently illustrates this. The F V W group is of less frequent occurrence than the P B M group, in the proportion of 67 to 91. The former has, therefore, the less facile line of the two. The difference in facility is represented by the values for F, V, W, of 76, 74, and 72, as against 86, 84, and 82 for P B M.

19. The perpendicular line is a traditional characteristic of F through all the ages. The hieroglyphic and the early Hebrew symbols for F resemble an outstretched forefinger. The Roman and Greek forms of F are too well known to need description. Hold up the forefinger, doubling the rest of the hand, and you have the F of "Compendious Shorthand." The affinity between the first and second groups may be memorised by association with the fact that, of all possible lines, these two alone, the horizontal and vertical, are not inclined.

GROUP III.—THE PALATALS.

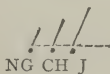


20. N T D is the most important triad of the whole series, because these consonants are amongst the easiest to pronounce, and therefore the most frequently employed in every

language. The lines most readily and rapidly formed by the hand are, therefore, allotted to them.

21. The fact that almost all persons using the right hand write on this, and the cognate upward slope given to the sibilant group, is a strong presumption that these two are the easiest slopes; but the author has worked out a mathematical demonstration of the fact, and has also demonstrated it by numerous practical experiments with expert stenographers, expert longhand writers, children who had never learned to write at all, and others in various stages of proficiency. As the net result of all these experiments, the maximum value 100 is given to /, 96 to /, and 93 to /, as stated in paragraph 14a. The recurrent values are, N 90, T 95, D 40, total 225. This slope may be called the right down-slope. It is a traditional characteristic of both N and D in the Greek and early Roman alphabets, and of N and T in the Phœnician alphabet, and of some of the hieroglyphs. It is the diagonal line formed by the underside of the tongue when the corresponding sounds are produced.

GROUP IV.—THE COMPOUND PALATALS



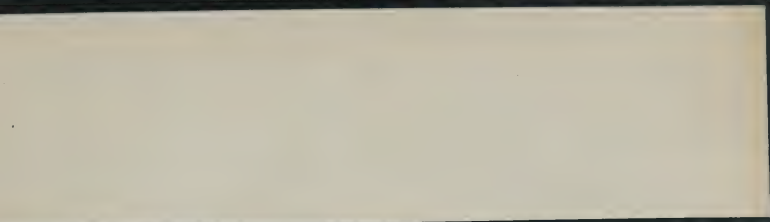
22. Ng is obviously a compound of N; Ch is really, though less obviously, a compound of T, with the sibilant Sh: and J a compound of D with the sibilant Zh. The lines selected to represent them indicate both these relations. Ng only differs from N in the point from which it is struck, the former being commenced at the bottom, and struck upwards, while the latter is always struck downwards. Tsh only varies from T, and Dzh from D in the same way, the dot under each character being employed to show the point from which they are struck. Tsh and Dzh only differ from S and S(z)h in the angle of direction, the former being inclined at an angle of 70, and the latter at one of 30

degrees with the horizon. This is the least important group, the recurrent values being NG 9, CH 6, J 7, total 22. Its slope may be termed the right up-slope.

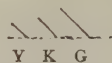
GROUP V.—THE SIBILANTS.


TH S SH

23. This triad, though not on the whole so important as N T D contains the most frequently used consonant of all those that occur in English :—namely S, to which the highest mark is allotted for frequency of recurrence. The recurrent value of S is 100 against T 95, N 90, and so forth. The recurrent value of Th is 33, and of Sh 24, the total of the group being 157. The sibilants thus rank next after the palatals in importance, and therefore, the second best direction is given to this triad. Many stenographers can be found to declare that the upward flat slope is more facile ; but the author's experiments show a slight difference in favour of the steeper downward direction, except as a stroke to finish an outline with, in which case the advantage is slightly on the side of the flat upward stroke. Now, as *th* and *s* are more frequently found at the end of words than at the beginning, this direction is eminently appropriate for the sibilant group. Like the palatals, the sibilants are produced by the tongue, and as the tongue from its position in the centre of the vocal economy is in the best position for making movements easily, the great preponderance of S, T, and N is fully accounted for. The direction values of the signs of this group are Th 90, S 88, Sh 86. This slope may be called the flat up-stroke, to distinguish it from the right up-slope. As already stated (paragraph 22), this slope inclines at the low angle of about 30 degrees from the horizontal. A characteristic of S in the hieroglyphs, in the Hebrew, Greek, and Early Roman alphabets, and in the commoner combinations of S in the Roman and Greek Shorthands, was the diagonal direction.



The gutturals should be thus—



instead of as printed.

GROUP VI.—THE GUTTURALS.



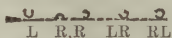
24. Except the compound consonants, this is the least important triad, and to it has, therefore, been allotted the least convenient direction, which may be called the left down-slope. The direction values are Y 66, K 64, G 62 ; the recurrent values, Y 6, K 26, G 16, total recurrent value 48. This direction is found in nearly every form of K, from the alphabet of the Ionic Greeks downwards.

25. It will have been noticed that the total recurrent value of a group does not decide the direction in one case (the compound consonants), and that in other cases the individual recurrent value does not always decide the position of a letter in a group. Phonetic affinity makes it imperative to give the right up-stroke to the compound palatals, and the principle indicated above (par. 14) governs the position of each character in its own group. The selection of the signs is in all other cases governed by the principle of frequency of recurrence, the exceptions named being rendered necessary in order to secure a grouping both strictly phonetic and in harmony with "the law of facility in speech," which the author has deduced from the fact observed, that in every language the sounds most easily and readily produced are the most frequently employed.

 THE COALESCENT CONSONANTS.

26. Two other important tip-tongue sounds remain to be dealt with, whose chief function is to blend with and modify other consonants. The liquids R and L, though not seldom leading consonants, are more generally found coalescing with and following other primary consonants, either as digraphs without any intervening vowel or with only a small and obscurely sounded vowel enclosed. The fluxional characteristic of these consonants pointed out the curve as their most appropriate form ; and as all the other primary consonants are right lines, the means of gaining the power of R and L, without expending a stroke on them, is realised. Every curved primary in this

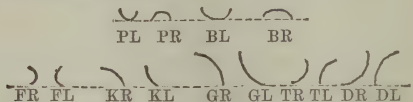
system is, therefore, a compound of R or L. If the curve is struck in the direction in which a right handed screw is driven home, R is added to the primary consonant, and if in the opposite direction L is added. In this simple and economical manner, that great desideratum is obtained of which Mr. Pitman says (par. 61, *Manual of Phonography*), "The natural way of expressing these combinations (pr, pl, &c.) would undoubtedly be by some marked and uniform modification of the simple letters." This modification, which is very marked as well as very simple, is universally applicable to the eighteen primary characters.



27. L is a small hollow or concave curve, and R a round backed or convex curve. They are coalesced with each other by simple junction, a second form for R being employed to facilitate this. The horizontal R and L are generally employed when a vowel follows R or L; when R is preceded by a vowel, the vertical R is mostly used.

The recurrent value of R is 74, and of L 46; their direction values are R 82, L 80. The curved line is a general characteristic of L and R in nearly all script alphabets.

28. The following form coalescent digraphs with R and L without an intervening vowel.



29. All the other primary consonants also coalesce with R and L with small intervening vowels, either not at all or but little sounded. Coalescents of this class are called "compendiums," and they form a very characteristic feature of "Compendious Shorthand."

30. Another series of compendiums is obtained by thickening the primary consonants to add the power of *T* or *D*. The following coalesce as digraphs without intervening vowel.

— pt — mt | ft / nt (nd)

All the remaining primaries may form compendiums with *T* or

D, but the characters of the right up-slope are never thickened, and those of the flat up-slope but rarely, except in a few very common words.

31. The curves, both digraphic and compendious, may also be thickened to add *T* or *D*, and thus an enormous number of long monosyllables can be fully expressed in a single pen-stroke.

THE SUPPLEMENTARY ALPHABET.

32. An extensive series of extremely useful compendiums may be obtained by the application of the lengthening principle which has been partially employed by Mr. Pitman and many other inventors, but by none fully utilized. It is an admitted fact in philology, that when initial *S* forms a digraph with another consonant, it has a continuative and intensifying effect. "Smelting" is a continued process of "melting" and "swabbing" a continued process of "wiping." To "stab" is far more energetic than to "tap," and to "steep" anything in water means much more than to "dip" it. To lengthen a consonant to add initial *S* has, therefore, the double justification of analogy with a principle known both in philology and stenography, one which, in Phonography especially, has been proved of great practical utility in Shorthand.

33. By lengthening *M*, we get *SM*, and from it the compendiums *Sml*, *Smr*, *Smlt*, *Smrt*, *Sml d*, *Smr d*, each in a single pen stroke. On the same principle we get *Sk*, *Skl*, *Skr*, &c.; *St*, *Stl*, *Str*, &c.; *Sw*, *Swl*, *Swr*, &c.; *Sp*, *Spl*, *Spr*, &c.; and a very useful terminal compendium "*S-ing*," as well as "*Sngl*" and "*Sngr*" by a line of extra length in the respective directions.

34. The supplementary alphabet also provides connective characters for all the vowel sounds—for *x*, *q*, and *c* (hard), and for a few words of very common occurrence.

35. Loops and other auxiliary characters are employed in such a manner as to secure an adequate representation of every monosyllable in the language, without using more than one primary consonant. The longest monosyllable is thus, at a glance, recognised as a monosyllable, greatly facilitating quick reading off.

The explanation of some of these principles may, however, be reserved for the latter part of the instructions, to be studied after the more elementary principles have been acquired.

VOWEL INDICATION.

36. In many ancient and some modern systems, vowels as well as consonants are written in the outline, but no system has hitherto been invented allowing of the copious expression of vowels, and yet remaining rapid enough for verbatim reporting. In some words vowels are absolutely necessary, and in many others they are of great advantage to the outline. Where used at all, they should be written in the outline, the writing of detached vowel-marks being extremely uneconomical. To lift the hand, carry it back to a particular spot, and to insert the vowel mark, is reckoned by many inventors as equivalent to three ordinary strokes. The author's experiments show that this is not far from the truth, the time lost being generally more than enough to write two average strokes.

37. In "Compendious Shorthand," all vowels which it is necessary or desirable to express, are inserted in the outline; but a complete though simple scale of detached vowels is hereafter provided, in order that any shade of sound may be expressed at need.

38. The inherent brevity of "Compendious Shorthand" permits of a free insertion of vowels, while the number of marks required to express a given passage still remains far below that required in any other system; but the number actually expressed in this system is small in comparison with the number which are indicated, by the way in which the characters are written. The following specimen sent to the editor of *The Bazaar Exchange and Mart* for comparison with others, representing all the most reputed systems in use, will illustrate this. It has been published in the course of the important controversy on "Modern Shorthand Systems," which is being carried on in the columns of that journal.

39. The test was to express in each system the first ten

lines of a leading article, entitled "Fair Fiddlers," which ran as follows:—"Starting from the premises that centuries of subordination, have left the gentler sex too gentle to compete on equal terms with man, a musical casuist might possibly argue that woman, having played second fiddle from the creation, can never make a first-class violinist. Such reasoning at all events, would be quite as logical as much of that which has been put forward in opposition to violin-teaching to girls, and although of late there has been something of a turn in the tide of." The passage contains 85 words or 129 syllables. It is fully expressed as below in 127 pen-strokes, and could have been adequately expressed in a dozen fewer. The briefest systems hitherto known required 168, 169, and 170 pen strokes, and except in one case, far fewer sound elements were expressed even then than in the "Compendious Shorthand" example. The other systems took from 220 to 255 strokes.

40. The words abbreviated are shown underneath, the letters in italics being the only elements not either expressed or indicated. The other letters within brackets are indicated, and the remainder are all expressed. The phrases are explained later. The words in small capitals are common words or phrases adequately expressed in some special form. But very few, even of these, are properly to be termed gramalogues, as they require little or no effort of memory.

41. The only elements, therefore, not either expressed or indicated, are *g* in *teaching* and *reasoning*, *o* and *w* in *forward*, and one obscure vowel from each of six words, viz., *premises*, *centuries*, *musical*, *possibly*, *second*, and *logical*. The omission could in no case create any difficulty in reading off. The phonographic specimen with 169 marks omits all vowels, and has *prms* for pr(e)ms(e)s, *sntrs* for c(e)ntr(ie)s, *skx* for s(e)x, *mn* for man, *kzhst* for c(a)s(ui)st, *rg* for arg(u), *pld* for played, *sknt* for skand, *st* for f(i)rst, *td* for tid(e), and many others equally curtailed.

42. An analysis of the last portion of the specimen will show the main principles of "Compendious Shorthand." *Such, would be, as much, of, something*; all these words are written below the line because their significant vowels belong to the lowest of the series *ee, ai, ah, au, oh, oo*.

FAIR FIDDLERS.

St(a)rting FROM THE pr(e)mise's that ce(n)tarie's OF s(u)b(o)r(d)i(n)'a'shn

HAVE left the ge(n)tl(er) s(e)x t(oo) ge(n)tl to (com'p(e)t ON EQUAL TERMS

WITH man a m(u)s(i)kal ca's'ui'st might p'o'sibl'y) arg(u) th'e't

w,o'man HAVING playd skand fi'dl FROM THE kr(e)ashn

CAN NEVER m(a)ck a f(i)rst.cl(a)s /v(io)l(ini)st. SUCH r(ea)s(o)nin

at al(e)vents WOULD BE QUITE AS l(o)j(i)kal AS MUCH of that

WHICH HAS b(e)n p(u)tf(o)rw(a)rd IN OPPOSITION TO v(io)l(i)n t(ea)ch(i)n

to girls AND alth(o) OF LATE th(er) h'a's b(e)n

SOMETHING OF A turn IN THE tide OF

Starting, centuries, sex, reasoning, which has, in the, are all above the line, because their leading vowels belong to the upper series. *All events,* and *although;* in these cases the initial hook implies "l" with a vowel preceding. The vowel of *all* belongs to the middle series and it may be placed above, on, or under the line, as may be most convenient for indicating the next vowel. In the phrase *all events*, the second and third vowels are indicated, the second at the junction with *all* and the third by the position of *v*, which bestrides the line. In *although* the final vowel is indicated by touching the line. The dot for *and* is placed upon the line because the vowel belongs to the middle series, just as the dot for *of* is placed beneath, to indicate the nature of the vowel in *of*. For the same reason, a dot above the line represents *the* or *thee*, the vowel in these words belonging to the upper series. *Events, been, turn;* these all bestride or cut the line, this device implying, not only a vowel, but *n* following a vowel, or, as it has been termed, the nasal vowel. The nasal vowel is a very common sound in French, and although in English the sound of "vowel *n*" is very different, Mr. A. J. Ellis shows that our "*n* is more truly a nasal vowel than the French sound," which is, properly speaking, an *ori-nasal*. We may, therefore, state the rule thus—"When a leading primary is made to cut or bestride the line of writing, the nasal vowel is thereby added." *Tr*, across the line is, therefore, *turn*, *b* upon the line is *been*, and a dot upon the line is *and*. *To, in opposition to;* *t* drawn with its terminal point touching the line, means *t* with a vowel added finally, and *n* with its initial end touching the line, means *n* with a vowel added initially. The line itself may be regarded as one continuous stream of latent vowel sound, only requiring to be touched by a consonant to become active. The vowel sound implied by the line is, preferably, one of the middle series, but it may be employed by the advanced writer for any vowel. Its chief utility in the early stages is to supply initial and final vowels to monosyllables, as in the words "to" and "in," now under notice. The line, besides being the vowel-indicator, is made useful in other ways, to be detailed further on, one great principle of "Compendious Shorthand" being to get the utmost possible power out of every

device used, in order that the devices required may be proportionately few.

43. In all these instances vowel indication has been obtained without expending a stroke, but occasionally it is required to indicate a vowel where the line vowel-indicator would not be precise enough. Such words as "tide," "played," "casuist," "violinist," are other instances.

The diphthongal vowel of "tide" is represented by the Greek (c) *iota*, a small semicircle like "vowel R," but turned in the opposite direction. It is really "fl" written half size. This curve may be thickened to add "d," so that in the two strokes of "tide" all the three elements of the word are expressed. In "played," the tick following the stroke for "pl" represents the tick vowel "a," made thick to add "d." In "casuist" the double vowel "ui" is expressed by lifting the pen in the middle of the outline, and writing the final character ST with an interval. This interval usually represents at least two elements; in "casuist," and in "violin" and "violinist," it represents two vowels; it may represent a consonant and a vowel, a syllable in fact, as it does in "compete." The hiatus, or interval, is similarly employed in other systems, but the device is somewhat extended in "Compendious Shorthand," in obedience to the principle stated in paragraph 42.

44. It is by means of a few natural and simple, but comprehensive, principles such as these, that the immense power of expression which "Compendious Shorthand" possesses is obtained. They are here presented at one view to show the simplicity, the soundness, and the scope of the plan pursued, but the pupil will learn them one by one, and by learning one thing at a time he will find in a few weeks that he has rapidly mastered the whole.

The pupil will now have obtained a general view of the study before him which will enable him to commence the practical work of acquiring a knowledge of the system from an advantageous standpoint, but in pursuing it he can adopt no better motto than "*Festina lente*." "Make haste slowly." He may occasionally meet with outlines which will require further explanation before he fully comprehends them; these he may always copy with advantage, but he must not use them as a model upon which to form other words and phrases until he

has received a further explanation of them which will in due course be given. *The student is desired in his own interest to adhere closely to every direction contained in these early lessons. Latitude will be allowed him as soon as it is expedient.*

METHOD OF STUDY.

45. Before proceeding to employ the alphabetic materials for the formation of fresh words and sentences, the pupil will now analyse the "Fair Fiddlers" specimen (p. 18). He will thus, in a manner, "quarry the materials with which he is going to build," and acquire the most intimate possible knowledge of them.

46. Four classes of words will be at once observed in the 85 words of the passage. They are, (*a*), words fully expressed ; (*b*), words more or less abbreviated ; (*c*), words expressed by special forms (those printed in capitals), and (*d*), phrases or grouped words. Each class will be considered separately, the simplest in each class being taken first.

FULLY EXPRESSED WORDS.

47. Line 1, *that*; line 3, *a, might*; line 8, *to*. These, with the remaining words of the first line of the plate on page 29, are so frequently occurring in English as to make up between them 25·7 per cent. of every ordinary speech. One half the words used by the average public speaker are contained in a vocabulary of only 60 words, and three-fourths of them in one of under 300 words. It is, therefore, of the utmost importance that the 60 words at least should be expressed adequately with a single inflection of the pen. They are so expressed in "Compendious Shorthand," and in it only a very small proportion of the 240 others require a double inflection for their adequate expression. The short sign for *an* is "vowel n," or as it will usually be expressed 'n. It is half the length of the alphabetic primary N, or one-twentieth of an inch, which is the standard length adopted for the tick, this being regarded as the shortest distinct line which can be employed in stenography. The sign for 'n placed below the line, which may be termed the lower position, reads *on* or *un*, and

placed above the line, *in*, *en*, or *an*. When thickened the power of *t* is added, as explained below (see pars. 58 and 72).

48. The horizontal tick which is derived from the bar of the Roman letter A represents the article *a*, and its euphonic form *an*, when written in the upper position, that is above the line, and the interjection *oh* and the verb *owe* when written below it. When thickened this tick expresses *at*, *add*, and *had* in the upper, and *owed* and *ode* in the lower position. The primary *th* made thick expresses fully *th a t* in the upper and *th o t* (thought) in the lower position. The preposition *to* is fully expressed by / with the end touching the line, the final vowel being indicated by contact with the line. Other functions of the line as a vowel-indicator are explained in the next paragraph and pars. 50, 69, 70, and 72.

49. Each of the preceding words is fully expressed in a single inflection; the following require two, but each outline contains only one primary. They are, therefore, called "primes" to distinguish them from the "compendiums." The compendium may be defined as a character of the coalescent form, used to represent a combination, which includes a silent or but little sounded vowel. The following are "primes," *sex* (line 2), written with primary *S* and auxiliary *x*; *possibly* (line 3) with auxiliary *p* and primary *SBL*, the line supplying the vowel *y*; *played* (line 4), with primary *PL* and auxiliary *ayd*; *make* (line 5), with primary *M* and auxiliary *c* (hard) for *k*; *although* (line 8), with auxiliary *al* and primary *TH*, the *o* being indicated by touching the line; *tide* (line 9), with primary *T* and diphthongal vowel *I*, as an auxiliary, the latter being made thick to add *d*.

50. The use of the line as an indicator of vowels is seen in *to* and *altho*. In *tide* and other words where not required to indicate vowels, it serves the ordinary purpose of being a guide to the writing, the rule being, for the end of the leading primary to rest on the line unless a different position is dictated by some special consideration. A primary of the steep up-slope, for example, when standing alone, has its initial end just crossing the line, to show that it is written upwards.

51. *Starting* (line 1), *gentler* (line 2), and *fiddle* (line 4), being written fully, are expressed with two primary stems; *teaching*

(line 7), requires three. The former class are termed "binaries," and the latter "trines"—these words "prime," "binary," and "trine" indicating respectively by their derivation the number of primary stems contained in any outline. The signs for *rt* and *'r* are here auxiliaries, not primaries.

ABBREVIATED WORDS.

52. *Premises, centuries, subordination, musical, and logical*, as well as *possibly*, might be classed among the fully written words, for the reason given in par. 41, and *teachin* might very well pass for a full form of teaching. *Forard* is also a sufficiently obvious form of *forward*. *To (com)pete*, line 2; *cas(ui)st*, line 3; *cr(ea)shn*, line 4, and *in oppos(ishn) to*, line 7, are abbreviated by leaving out a syllable (at least two elements) from the middle of the outline (see par. 43). This abbreviation by "hiatus," is a very natural and a very well-known device, both in shorthand and longhand. *Of'n* for often, *ne'er* for never, and *e'er* for ever, will occur to everybody; and in every seaport *fo'c's'l* would be perfectly intelligible for fore-castle. The elements indicated by hiatus in the specimen on page 18 are in three cases double vowels and in three others a syllable.

SPECIAL OUTLINES.

In every practical system of Shorthand, the necessity of giving the shortest possible forms to very common words is recognised, and in nearly all of them a large number of more or less arbitrary characters have to be employed, which not only burden the memory of the learner, but are a source of much trouble to the expert, if he lays aside his practice for an interval. The inherent brevity of "Compendious Shorthand" renders it entirely unnecessary to resort to this common, but undesirable, contrivance; for although the great majority of the 300 commonest words of the language are expressed in a single pen-stroke, they are so fully expressed that for ordinary purposes less than fifty, and for the fastest reporting not more than five score, of special outlines or logograms require to be committed to memory.

53. Lines 1 and 9, *of*; line 8, *and*. These words and

the, as stated above (par 42), are represented by the dot, or as it is by preference called, the *dit*, to distinguish it from the dot, there being an important practical difference between them. The idea of perfect roundness which now belongs to the word "dot," did not attach to it before the invention of printing. In previous epochs the quickest possible written mark was called a jot, but it was never perfectly round, except by accident. The corresponding "Yod" of the Hebrew and the "Iota" of the Greek are not round. The old stenographers were quite right in calling the dot the shortest possible stenographic mark, because they meant a mere point or dit, and the moderns are equally right in saying that the dot is not an expeditious sign, if they mean a mark that must be made perfectly round to prevent its being mistaken for a dash, or other short thick sign. The dit is undoubtedly the most rapid of marks, but the dot is not. The double dit after "*violinist*" represents a full stop. It is the sign commonly used in book-keeping to indicate zero in the cash columns.

54. The following, which may be called "memory words" are amongst the number of special signs to be learnt by heart. The brackets show the elements not expressed. Line 2, [*h*]av for *have* and *to have*; line 5, su[*ch*], and line 9, somt[*hing*].

55. A further use of the ruled line is shown in the outlines for *man* (line 3), *woman* and *having* (line 4), *second* (line 4), *all events* (line 6), and *turn* (line 9), to some of which reference was made in par. 42.

An outline, very brief, yet very full, is obtained for each word by the device of bestriding the line, which in subsequent paragraphs is referred to as the "secant" (or cross-cutting) principle.

56. In *violin* and *violinist*, the secant principle and the hiatus are both employed. For *violin* the primary stem V is written to the line of writing, the pen is then lifted, and L is written across the stem V. The lifting of the pen indicates *io* by the hiatus and the crossing of the stem adds 'n, the effect of crossing the stem being generally, but not in all cases, the same as crossing the ruled line.

The difference consists in the fact that in crossing the ruled line, 'n has always a definite position after the primary con-

sonant, and in crossing the stem 'n is implied in a less definite manner. In *violinist* the lengthened stem *ST* (see par. 33) is simply added to the *L* after crossing. The *S* of *reasoning* being intersected by *N* forms *reasonin*.

PHRASE GROUPS.

57. Compendious phrase-signs may be formed with advantage of very common words, but with words not frequently recurring such compendiums might cause a hesitancy in reading off, which would more than counterbalance the advantage gained in writing. Even in common words they are scarcely allowable unless justified by some analogy with existing facts of language. A compendious phrase-sign is termed a *stenogram*.

58. The phrase *from the* (lines 1 and 4) is represented by a thickened *fr* under the line. The thin coalescent *fr* in that position represents *from*, and this sign therefore expresses *fromt[he]* which in so common a phrase is sufficiently suggestive of *from the*. In line 9 the 'n tick made thick and placed above the ruled line expresses *int[he]* which in the same manner suggests *in the*. The expressions "*in t' wood, from t' fair, down t' lane,*" are very common enclitics in vernacular English, and afford a full justification for their employment in Shorthand for the purpose of obtaining that brevity which, as all the various names given to the stenographic art imply, is its main object.

59. Line 8, *of late*; line 9, *of a*. A similar tick is here formed by prolonging the dit for *of* into a tick for the purpose of joining *of* to the following word. Consequently the thick tick in the *n* direction must not be joined to another outline when it signifies *in the* or *on the*. The thick tick may, however, be turned in the direction in which *h* is made and then joined. No clashing can result, because the tick for *H* is never required to be made thick. (Par. 70.)

So far as *H* has any consonantal character, it belongs phonetically to the guttural group. It is, therefore, made the tick length of that group, or half the length of *Y*, the shortest guttural primary.

60. Line 6, *would be*; line 7, *which has*. The compound nature of the sound represented by the English *W*, whether used as a

vowel or a consonant, is appropriately exhibited to the eye in the elliptical form of its auxiliary sign. It is intended to represent two vowel ticks joined together at the bottom in such a way that, retaining the principle of simplicity even in the minor characters, it may be made with a single inflection of the pen. The partial ellipse is more convenient than the primary *W* for placing under the line, because the latter, being a third length sign, brings the hand rather low down from the line of writing. For a parallel reason the ellipse is preferable for placing above the line as in *with* (line 3), the primary *W* being the most convenient for writing across the line. Thickening the *w* on one side adds *d* (or *t*), the proper vowel is implied by position, and *B* is attached to express *be*; so that this outline fully represents the elements of *would be*. *Which* is represented by a similar character having the round end turned upwards. When both ends are closed so as to complete the oval, the added power of *s* is implied. The oval above the line represents *whas* for *which has*, and below the line *wos* for *was*.

61. The frequency of *s* and its compounds is exhibited in the specimen very clearly. A dozen instances have already been referred to, the majority being written either with the primary *S* or the lengthened primary *ST*. A dozen more have the *s* in its auxiliary forms—line 1, *premises* and *subordination*; line 2, *equal terms*, *musical*; line 5, *a first class*; line 6, *at all events*, *quite as logical* and *as much*; line 7, *in opposition to*; line 8, *girls*; line 8, *there has been*. Over 34 per cent. of the words contain some sound of *s*, while nearly 12 per cent. contain the other sibilant sound *th*, 46 per cent. having sibilants and 54 per cent. being without. It is, therefore, necessary to provide *S* liberally with auxiliary forms. In "Compendious Shorthand" a loop as well as rings in two sizes are allotted to *s*.

62. The small circle for *s*, and the large one for *Ss*, are generally the most convenient forms for initials where a curved character follows, and also in the middle of an outline. The circular *s* is also very distinctive as an isolated mark, although in that situation it is not an economical sign to make. Both the circles may be thickened on one side to add the power of *t*, but this is a device to be sparingly used. When attached initially to a straight character, or finally to any character, *s* is

represented by a loop, the end of which crosses over the stem, not only to distinguish it from other loops, but for the sake of rapidity and facility of junction with a succeeding stroke. *At all events* shews an example.

63. *Can never*. The outline actually expresses *can-n'r*, the first part of the outline being that of the common word *can*, and the second *nr*, with a vowel which necessarily intervenes. When placed above the line, *nr* represents *ner* for *never*. As *canner* cannot stand for a single word the two words may be joined as a phrase, but they may, of course, be separately written, and this option applies to all phrase writing.

64. The phrases, *a first class*, *at all events*, *as much*, *of that*, and *there has been*, consist of fully expressed words which might, of course, have been written separately. In joining them into groups, eight ineffective movements or lifts of the pen are saved, and as these words are frequently found in conjunction, they should be always phrased. The initial tick for *the*, as in *the gentler*, is also very serviceable, but the other phrasings, though desirable in reporting, are not absolutely necessary. By joining *that* to *argue*, the writing of the vowel *ew* is obviated; *too* forms a very convenient junction with *gentler*, and *have* with *left*. *Quite as logical* is an optional phrasing. *To [com]pete* and *in oppos[ishn] to*, are examples of syllables being implied by hiatus. *Com* and *ishn* being very frequent, this model should be strictly followed.

FIRST COPYING PRACTICE.

65. Procure thin paper, transparent enough to show through it the characters of the specimen (page 18) for the purpose of being copied. With a rather soft pencil trace the characters of the first line from the book, accurately reproducing them and making the proper distinction between thick and thin lines. The thick lines must be made by a heavier pressure, but no character must be gone over a second time to thicken it.

b. Compare the tracing with the specimen, and if there is the slightest inaccuracy make a fresh tracing of the line.

c. When the tracing is exact in every respect, go over each outline with a tracing point which will not mark the paper,

calling aloud the name of the word first and naming aloud the sounds of the elements in the order of writing them.

66. At every junction of two primary lines a vowel must be pronounced unless it is the point of division between two syllables one of which ends and the other commences with a consonant. The first word will be pronounced *sta-art-ing*, followed by the proper sound of the word. The vowel is pronounced both after *st* and before *rt* in order to acquire the habit of implying vowels at the junctions, and of sounding them with either or both the consonants. The second character must first be called *front* and then translated to *from the*. The third character will be pronounced *pre-ems-es* premises, the fourth *that*, and so forth.

Proceed in the same manner line by line throughout until every word and phrase is thoroughly familiar and can be readily and correctly traced and named.

SECOND COPYING PRACTICE.

67. Above each outline write the corresponding letters in long hand, commencing with the last and ending with the first word of every line. This will accustom the pupil to rely upon each individual outline and not upon context or his memory of the words.

On ordinary paper ruled with lines half-an-inch apart, write for each element its corresponding outline without seeing the model, which should now be under the paper the pupil is writing upon.

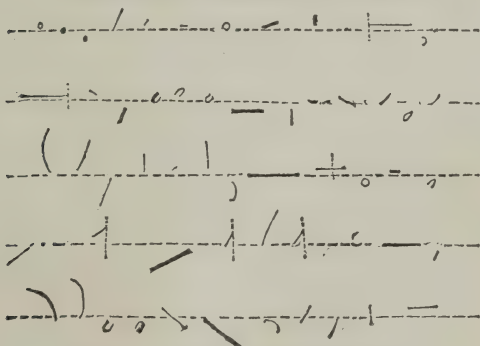
As each line is finished compare it with the specimen in the book, and if any variation be observed the line must be recommenced. The pupil should not proceed beyond the specimen until each of its sixty outlines can be accurately reproduced without looking at the model.

THIRD COPYING PRACTICE.

68. The following list of the sixty commonest words of the language may next be copied a dozen times, in doing which the

tracing should now be dispensed with. The relative sizes must always be strictly kept, and until a good style is formed constant comparison with the standard lengths as given in the specimen on page 18, and also in the Alphabetical Chart, should be resorted to. The relative sizes being always maintained, the actual lengths are of less importance, but the pupil is recommended not to make them smaller than his model. The alphabetic chart which forms the frontispiece should be opened out, or the specimen on page 18, during all the early lessons, so as to be ready for reference at all times. They are made to open out and fold in for that purpose.

THE SIXTY COMMONEST WORDS.



ANALYSIS OF THE SIXTY WORDS.

69. Line 1. *The* (*thee*), *and*, *of*, *to*, *in*, *a*, *is* (*his*, *has*, *as*), *that*, *it*, *him* (*am*), *or* (*our*). Most of these are already familiar. The dit *the* is used for the pronoun as well as the article, and the small ring *s* for *is*, *his*, *has*, and *as*, when above the line, and for *us* and *so* (line 3) when below. If placed across the line 'n is added medially, making *son*, *sun*, or *soon*. *It* is represented by the upper vowel tick, which is made thick to add *t*. *Him* is represented by 'm, the vertical line cutting off the *h* and supplying the vowel *e*, *i*, or *a*, at the same time. The same sign represents *am* in the upper position, and *home* if placed in a corresponding position below the line.

In the early exercises the pupil may strike a vertical line with his pencil, in the required position, for words of this class, but in more advanced practice he will find it convenient to procure the author's exercise books, which are specially ruled.

Or has the alphabetic sign for 'r. Being placed in the lower position, a lower vowel (*au*, *o*, or *u*,) is added as the initial. It, therefore, fully represents *or* and *our* in the lower position, and in the upper position it represents *are*.

70. Line 2. *Me* (*may*, *my*), *he*, *not*, *with*, *which*, *we* (*way*), *but*, *for*, *you* (*ye*), *no* (*know*, *now*), *was*, *there* (*their*). Several of the above have been explained (pars. 60 and 61). The alphabetic primary *M*, ending at the line, fully expresses both the consonant and vowel sounds in *me*, *may*, and *my*; *he* is the alphabetic sign for *H*. *Not* is fully expressed by *n* in the lower position (made thick to add *t*), and *but* is in the same category; *w* touching the line fully represents *we* and *way*, and *Y* and *N* similarly placed represent fully *you* (*ye*), and *no* (*know* and *now*). When an outline touches a line finally, it may be said to be in the final vowel position; and when it touches a line initially, in the initial vowel position. The closing of the elliptic *w* to add *s* has been referred to. The oval *ws* placed in the lower position expresses *wos* for *was*, and in the upper position *whas* for *which is* or *which has* (see par. 60). *There* and *their* are represented fully by *th* coalesced with the *r*, an upper vowel being added by position.

71. Line 3. *Will* (*well*, *while*), *these*, *those*, *if*, *have* (*to have*), *from*, *man*, *being*, *us* (*so*), *at* (*had*), *who*. *Will*, *well*, and *while*, are fully expressed by the alphabetic *W* curved to add *l*. Most of the other forms in this line should be committed to memory pending further explanations. *From* is distinguished from *for* (line 2) by its coalescing with *r*. The symbol of *from* really represents *fro*, and the symbol of *for* represents *fo*.

72. Line 4. *Such*, *they* (*them*), *should*, *into*, *do* (*day*), *any*, *I* (*high*, *aye*), *been*, *on*. *Such*, *on*, and *been* are already familiarised. *Th* in the final vowel position above the line fully represents *they*, and may be used for *them*, the line being supposed to cut off *m* as well as to supply the vowel, as in the case of *him* (line 1). *Should* is fully expressed as *shud*, written downward when a pen is used. The fourth outline should have

been shown as a thickened *N*,—*Into* is the *n* thickened to add *t*, and placed against both lines to indicate that it both begins and ends with a vowel. The two vowels and the two consonants are all represented in a single stroke. *Any* is the *n* placed in a similar position, showing that it is *n* with one vowel in front, and another in rear of it. (The pupil will now begin to see the power he gets from his ruled lines.)

73. Line 5. *Great, were (where), would, what, can, God, your, none (known), own, often, be (to be).* *Great* is doubly a coalescent (the technical term is compendium), as it is curved to add *R* and thickened to add *T*. When a primary is both bent and thickened, the curving power has precedence over the thickening power in reading. This outline is, therefore, to be read *gr t* and not *gt r*. The rule is an outcome of the fact that the curving coalescents occur much more frequently in long monosyllables than the thickened coalescents. In the case of *n*, however, the opposite takes place. This consonant is never directly followed in any syllable by *r* or *l*, without an intervening vowel, but very often directly followed by *t* or *d*, hence the *n* is supposed to be always thickened first before being bent to add *r* or *l*, and therefore such compendiums would read as *ntr, ntl*, which are frequent, and not *nrt, nlt*, which are very infrequent. *Were (where)* and *your* are fully expressed by means of their *r* coalescents, the former placed in position to imply an upper, and the latter to indicate a lower vowel. *Would, what, and God*, are compendiums formed by the addition of *d (t)*, and a lower vowel. *Can, known (none)*, and *often* add 'n to the primary by being in the "secant" position, that is, astride the line of writing; *often*, being only represented by *fen*, must be committed to memory. *Own* is sufficiently expressed by the *n* in the initial vowel position.

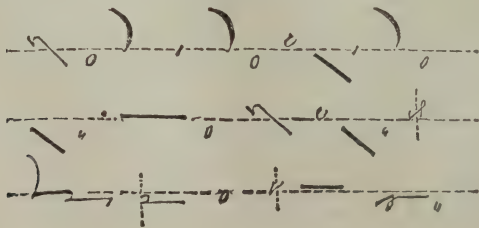
74. The primary *B*, as here written, like the *V* (line 3) used to express both *have* and *to have*, should be committed to memory. It represents both *be* and *to be*.

The sign of the infinitive mood may be implied in very common words by placing the primary consonant in an isolated position above the line, if the principal word has an upper vowel, and in the lower position, if it has a lower vowel. In an analogous manner, *to do, to give, to go, and to come*, are

obtained. The position of the sign is governed by the vowel of the principal word, *to have*, *to be*, and *to give*, having respectively *V*, *B*, and *G* in the upper position, and *to come*, *to do*, and *to go*, *K*, *D*, and *G* in the lower position. The six signs may be memorized.

75. The extent to which the sixty common words enter into vernacular English may be seen by reference to an extract from the Gospel of St. John:—"In the beginning was the Word," &c., the passage ending with the third verse. The three verses contain 43 words, or 49 syllables, and the utility of giving short forms to common words (without losing anything in legibility) is strikingly shown by the fact that to fully represent the 49 syllables in this system, only requires 41 inflections of the pen. They are represented below with 39 inflections, *ing* being left out of *beginning*, which occurs twice, and it would have been easy to further reduce the number. Twice the number of strokes would not suffice to express as much in many extant systems. In the corresponding style of Phonography—a very brief system—the passage requires 59 pen-movements to express what in "Compendious Shorthand" is expressed with 41 marks. Neither is any detached vowel-sign necessary in this system to express the passage, while 13 would be used in Phonography, which in the mechanical effort consumed would be equivalent to the making of about 30 primary marks.

Ten of the words, by their frequency of occurrence, make up between them 34 words out of the 43. *The* occurs seven times, *was* six times, *and* four times; *Word*, *God*, and *made*, each three times, and *in*, *him*, *with*, and *beginning*, each twice.



FOURTH COPYING PRACTICE.

76. Copy the passage several times from the plate and then reproduce it three or four times from the words only, carefully correcting each time that any variation from the specimen is observed. Note (*a*) that *ing* is left out of *beginning*, and that it is implied in *all things* and *anything* in analogy with *being* in the "sixty" list ; (*b*), that *was not* is expressed by *ws'nt* ; (*c*), that *without* is expressed by the last part only of the word ; (*d*), that an initial large hook represents *be* in *beginning*, in the first and second lines, and that a similar medial hook represents *by* in the third line ; (*e*), that *in the* may be joined to words initially when written on the left slope, and that *and* may be joined finally by prolonging the dot into a tick.

In pars. 58 and 59 the enclitics *out* for *on the*, and *fromt* for *from the*, &c., were considered ; *was'nt* is a similar enclitic, and as it is very common in speech it is formed into the phrase compendium *ws'nt* by placing the ellipse *ws* (thickened on the down side to add *t*) across the line, thereby adding 'n medially. The auxiliary characters for *b* and the other consonants afford a convenient means of expressing in monosyllables two consecutive *b*'s, *p*'s, &c., to indicate their nature as units of sound. *Babe*, for example, would be expressed with the primary *B* and the auxiliary *b* (which may also represent *p*). The presence of only one primary would then show that it was a *prime* representing a unit of sound or monosyllable. But in the present examples, and with a small number of other common words, the *prime* may, for brevity's sake, be used either with *be* or *by* in phrases, or to express dissyllables. But since in all cases of doubled consonants a vowel intervenes, it is always possible to use two primaries separated by a vowel and for this purpose a sign for a neutral or universal vowel is employed. When using a pencil a minute circle may represent this vowel. It will appear as a dot, like that at the end of *mack* when ink is used (p. 18), but it cannot clash, as shown in par 83.

77. The pupil may make a full use of the universal vowel in the early stages, leaving it to a later period to dispense with it in favour of more compendious forms when very great speed becomes a desideratum. Indeed for present purposes the use

of many of the devices detailed need not be extended beyond the actual examples given, but they are introduced into the specimens to serve as models up to which the student may gradually work. The omission of final *ing* without indication is limited to a very small number of long words, but this syllable may often be dispensed with by a device resembling that by which the leading syllable is cut off the word *without* (see also *him*, par 69), namely by making the part of the word expressed touch the line initially, to indicate that the head is cut off, or finally, to indicate that the tail is cut off by the line. All these devices together with the full phrasing of which "Compendious Shorthand" is capable will be gladly brought into use by the reporter who has to work up to 180 words a minute, or more upon occasion, but up to the limit of 150 words per minute the student need not go beyond the instances given in the specimens or their most obvious modifications.

78. The words contained in the examples given, with a few others to be added, furnish two-thirds of all the stenographic outlines that can ever be required, and supply ample materials for the easy evolution of the remaining third. A thorough familiarity with the small stock of symbols now provided is, therefore, the first requisite, and this will be attained by following the directions given, and by conscientiously working out the preceding and following exercises.

79. The subject may now be considered more in the abstract. The alphabet must be fairly attacked and conquered, the various groups being written over and over, until the signs go down on the paper correctly, and almost without an effort of the mind, as soon as the letters they represent are named. In writing a character always call out its name aloud before writing it, and after writing it call its name again. In the first process the hand is learning to follow the sound, and in the second the eye is learning to take in the meaning of the sign at a glance. Let reading and writing always thus go hand in hand, and let both parts of the process be audible. Open the chart.

It is a remarkable fact that all systems of Shorthand are more easy to write than to read. This can only arise either from some defect in the system studied, or from faults of teaching. If, in the endeavour to attain brevity, no vowels are expressed, and if

the narrow distinctions which divide thick from thin, and straight from curved characters, are used in the alphabet to differentiate the primary consonants, instead of the minor ones, and especially if the sound elements are taken down in a sequence which is neither that in which they are spoken, nor that in which they are to be read, then difficulties in reading may be expected to arise. But this should not be the case in "Compendious Shorthand" for the reasons stated in the preface (p. xv.).

80. But in any system whatever, Shorthand notes differ so greatly from the symbols of ordinary writing as to necessitate a special training of the eye. Only by this means can the mind rapidly apprehend through that organ the meaning of the Shorthand characters. Many pupils err in neglecting this training of the eye, thinking the ability to write, everything. The best corrective for this is to obtain, where possible, a few oral lessons from a judicious teacher. Where that is not possible, a strict adherence to the directions in this and the next paragraphs will generally suffice to make the process of reading "Compendious Shorthand" as easy as writing it, and make both tasks as pleasurable as they are profitable. (See also par. 64.)

81. A great help to reading is to acquire the habit of sounding the neutral vowel at every junction in an outline (par. 66). This sound, though very common in English, has no symbol in the ordinary English alphabet. It is heard as the final sound in *villa* and *umbrella*. The French call it *e mute*, and use it with extreme frequency in words such as *de*, *que*, &c. The author has found it very advantageous to cause his pupils, in learning the alphabet, to call each character by a dissyllabic name in which the neutral vowel is introduced both initially and finally. In the first group they are 'pp', 'bb', 'mm', which are sounded nearly as *upper* (with the Cockney *r*), *ubber*, *ummer*. The strangeness of this method of sounding the letters soon wears off, but the advantages that result from it are solid and lasting. The learned cryptographer, Dr. F. Westby-Gibson, points out that in the word *America* three of the four vowel sounds cannot be represented by the symbols of the English alphabet.

82. All the alphabetic characters must be carefully traced.

through transparent paper many times. They must then be frequently copied without tracing, and the lengths and slopes be tested by gauges which may be had of the author. The vertical group, though it seems paradoxical to say so, may with advantage be made to lean over a very little (not more than two or three degrees) to the left. This will correct the natural tendency to let the intended vertical line lean over to the right. In trying to make the line lean slightly to the left, I find that my pupils, as a rule, if they make a mistake at all, make the line perfectly vertical. Care must be taken, however, that this leaning is only just perceptible.

83. The guttural group has, for this and a philological reason, a flatter slope than would otherwise be necessary, the angle of its inclination being 40 degrees from the horizontal, or 50 from the perpendicular. *Y* in the guttural group, and *V* in the dentilabial group, being never followed immediately by *R* or *L* in the same syllable, are not coalesced in the usual way with the two curves, except for two or three word-signs, but generally the result is nearly the same, the straight consonant in quick writing running into the curved one smoothly and without a break. This mode of joining is useful, because in correspondence a distinction can be made between a broad and a small vowel by marking the junction of the curve and the straight line more distinctly, to imply the broad vowel. No primary is assigned to *C*, *H*, *Q*, *X*, *Z*, or *Zh*, but the first four are provided with minor characters. *S* and *Sh* represent *Z* and *Zh*; *C*, when it has the sibilant sound, is represented by the primary *S*. The guttural sound of *C* may, whenever convenient, be represented by the primary *K*; *Q* by *Kw*, and *X* by *Ks*, but at the beginning or end of an outline instantaneous recognition and consequently rapid reading, are secured by the use of a black round dot for hard *c* (= *k*), as in the specimen on page 18 in *casuist* and *make* (*mac[k]*). The dot must not be used for *C* medially, because it might be read for the neutral vowel (see par. 76). The same mark of double size may be used for *Q* initially, and in French for final as well as initial *Q*. These minor characters are exhibited with the other signs of the Auxiliary Alphabet given in the frontispiece. The chart should always be turned out in reading these paragraphs.

THE CONNECTIVE VOWELS.

84. In the first specimen (page 18) vowels are shown connected to the consonant outlines, as in line 2 (*equal terms*); line 4 (*played*); line 5 (*a first-class*); and line 9 (*of a* and *tide*). In *violin*, and other words, they are indicated by "hiatus," and, in a still more numerous class of words, the vowels are indicated by the ruled lines. The vowels have already been partly described. (See pars. 42, 43, 47, 60, 66, 69, 76, 77.) A thin tick attached in the horizontal, vertical, or right-downward direction may represent an initial vowel. When in the upper position, any of these will represent any of the upper vowels, and in the lower position any lower vowel. The horizontal and vertical ticks may also be attached finally for any vowel, but they may not be employed medially, and are not in that position required, the dot described in par. 76 performing the function of any medial vowel.

85. The diphthongal vowel (c) may also be connected both initially and finally, but not medially; in the upper position it represents the sound of *I*, when it commences the outline, and in the lower that of *oi* or *ow*, but as a final it represents any one of the three sounds. The remaining diphthongal vowel *ew* was described in par. 60, where it is referred to as the elliptical *w*. It is seldom used initially, the primary consonant *y* more conveniently representing this vowel in words like *use*, which generally take the consonantal sound *y* before the vowel. The vertical tick is only used as an isolated mark to represent the word *it*, but the other vowel marks are used, as already shown. The easiest tick (') represents *in* or *on*, according to position (see par. 48), and when standing alone it may be struck either upwards or downwards, according to convenience, but when joined it can only mean 'n if struck upwards. This tick may be used medially for 'n when struck upwards, if more convenient. It therefore always represents 'n, except when written downwards and attached initially, as in "a first-class," where it is an alternative form for *a*, or other upper vowel. The facility of joining an initial vowel by a tick in any convenient position justifies the exception, but, as will no doubt have been observed, exceptions are in this system reduced to a minimum, and are

never adopted unless completely justified by gaining some adequate practical advantage.

86. The more complete scale of detached vowels contains heavy ticks to indicate broad vowels and light ticks to indicate light vowels, but the connective vowels and the vowel word-signs have thin lines which permit of adding *t* or *d* by thickening, as in the case of the consonants.

87. EXERCISE I.—READING.

(a) Pronounce aloud each of the 60 commonest words on looking at its outline; first, in the usual order; second, in backward order; third, vertically downwards; fourth, vertically upwards, commencing with the last word.

Repeat the exercise in every order until each word is instantly suggested on inspection of the outline.

(b) Apply the same plan to the 43 words from the Gospel.

(c) Apply the plan to the "Fair Fiddlers" specimen.

88. EXERCISE II.—WRITING.

Write the following sentences with outlines, which are *fa similes* of those given in the preceding pages.

1. It was the Word that was made man.
2. But there has not been anything to do.
3. What do you know of him?
4. God is from the beginning, and will be for ever.
5. You know well that he is not there.
6. He will be there soon.
7. What can he do with it now?
8. You can never do anything with him.
9. Had he not been there.
10. The tide will soon turn.
11. None were left of them.
12. God was in the beginning of all things.
13. We will do that at all events.
14. Without him he can never do it.
15. What can I do for you?

EXERCISE III.

89. 1. In analogy with *starting* write *smarting*, *skirting*, *swearing*, *staring*. (Note : in the first two the *r* is thickened to add *t*, as in the model word.)

2. In analogy with *premises* write *promises* (lower position for *o*), *flimsies*, *grimaces*, *glimpses*.

3. In analogy with *centuries* write *chantries*, *gentry's*, *thunderous*, *pantries*, *laundries*, *boundaries*.

4. In analogy with *class* write *glass*, *grass*, *brass*, *dross*, *stress*, *tress*, *dress*, *cress*.

5. In analogy with *fiddle* write *middle* (only one *d*), *noddle*, *noodle*, *diddle*, *waddle*, *cattle*, *settle*, *saddle* (s'Tl, s'Dl), *fuddle*.

6. In analogy with *make* write *stake*, *bake*, *break*, *crack* (Krc), and in analogy with *sex* write *vex*, *mix*, *six*, *sticks*, *fix*, *cracks*, *breaks*, *drakes*, *bakes*, *box*, *mocks*, *cocks*, *docks*, *tax*, *knocks*.

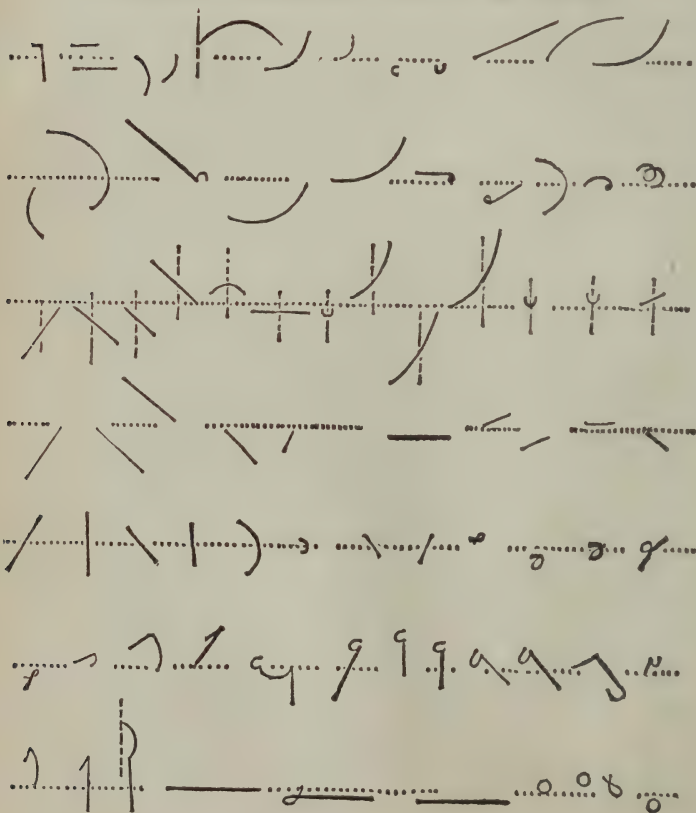
90. In the specimen on page 18, 28 outlines commence with primary signs, of which three, *put*, *there*, and *turn*, are compendiums, the vowel being *enclosed* or medial. The remaining 25 follow the rule. But compendiums are not admitted in unfamiliar words, which, so far as the student is concerned, at present means all words whose forms in "Compendious Shorthand" he has not yet made himself acquainted with. Therefore the rule is absolute until he is shown how further to extend the categories in which *put*, *turn*, and *there* fall.

91. It will be observed that all the first primaries which are not written upwards tend to the line when started above it. In words consisting of more than one stroke this is merely a matter of convenience, as the point of junction shows the vowel whether the stroke be written to the line or not ; but in words of only one stroke, where the vowel is final, the line is used to show where the vowel comes. This leaves the isolated position of a simple primary free to receive any conventional meaning, the utility of which device is shown in the cases of *such* and *much*, where *S* and *M* in the *u* position add *ch* by isolation. The signification of *S* is added, on this principle, to the signs for *this*, *thus*, *these*, *those*, and *use*, rendering these brief forms less arbitrary and (few though they are) less of a burden to the memory. (See also par. 116.)

WORDS FULLY EXPRESSED (PAR. 92).

D^{an}, TH^{an}, wh^{an}, W^{an}, M^{and}, F^{and}, S^{ant}, V^{an}, eG^{an}, eP^{an}, 'pN^{an}, °ND
 °ND^r, °ND-ST^{and}, °ND^rST³'d, °V^r, B'TH³, °V^ra, V^r^a, NTr,
 NTr^l, TH³t N¹'r, N³'r, Tr³, iTH^r^l, °TH^r³, 'rd³r', Tr³t, SH^l^l,
 SH^r³, L't^l, SH^rt³, aut, L'it, L³, SM³, SP^rt³, SP^rd^l, SW^r,
 SW^l, q'ST^{an}, SK^l, SK^r, SK^r₃, SK^{an}, SK^{and}, M^r³, T^l_l,
 °NT^l, y't^l, F^l₃, F^r₁, s^{an}s, eCH, eS¹, eS².

CONTRACTED FORMS, &C., PAR. 93, 94, AND 95.



EXERCISE IV.

Form other familiar phrases, but employ no word not yet given. Add the following words to your vocabulary (see plate opposite) :—

92. WORDS FULLY EXPRESSED.—*Done (down), then (thine than), when, one, mind, find, sent, even, again, upon, opinion, end (hand), under (enter), understand, understood, over, both, every, other, only, though, thy, by, few, she, very, nature, natural, thought, near, nor, true, either, author, order, truth, shall, sure, let, short, ought, light, law, some, sport, spread, swear, swell, question, skill, scare, score, scorn, scorned, more, till, until, yet, full, fear, since, each, ease, easy.* NOTE.—When a sign represents more than one word the extra words are bracketted.

93. ABBREVIATED WORDS.—*Advant[age], happ[y], ob[ject], [how]ever, [h]onour, import[ant], shor[th]and, ne[v]er, [h]ow, lo[r]d, spea[k], sp[ecia]l, sp[i]rit, wo[r]ld, scri[p]ture, sec[re]tary, s[u]per, spare, bec[ame], (bec[ome]), cause, ([be]cause), chara[c]ter, partic[ular], extraord[inary].*

94. SPECIAL FORMS.—(1) Words adding *ing*, in analogy with *being*; *doing, going, coming, giving, bring, (a)mong, long, daring, strong, strengt[h], lengt[h], lang[uage], think.* (2) Words adding *to*, in analogy with *have (to have)*; *to do, to go, give (to give), come (to come), to know.* (3) Words adding *s* or *st* in analogy with *these, those; must, this, thus, peace, use.*

95. PHRASE SIGNS.—*Do not (don't), will not (wont), cannot (can't), have not (hav'nt), were not (wer'nt), are not (ar'nt). You know, no one (none), it is, it was, it was not (it ws'nt), that is not, is not, they are, they were, they did, I believe, I don't, I have, I have not, we can, we can't, they can't be, in all, in every, in one, every one, some one, somebody, somewhat (some-as is (as his), is his (is as), has his, so as (as us, so is).* When standing alone one position suffices for *is, as, has, and his*, but these phrases are more easily read when two are observed.

96. The lengthened characters SM, SP, ST, SW, SK, and MP, may be made any convenient length. They may be from $\frac{1}{3}$ to $\frac{1}{2}$ an inch long, according to the size of the other characters, the best standard being that shown in the Alphabet.

No confusion can arise from using the lengthened M for both SM and 'MP, because the latter never commences a word (if a vowel precedes, the line will indicate it), and the former is never employed as a medial or final character. When final, *sm*, as well as *ms*, *ns*, and *sn*, are most conveniently represented by the auxiliary characters referred to in paragraph 97. *Good* is written as a *prime* (auxiliary *g* and primary *D*), to distinguish it from *God*, which is written as a compendium, thus *Gd*.

97. The student will not have failed to observe how small a proportion of the above words lose any of their elements and that as a rule the omitted portion is not essential to the recognition of what is left. In a few cases, however, they will require to be memorized. The *h* can easily be dispensed with in *honour*, *however*, *how*, *strength*, *length*, &c., but the loss of *a* from *among* and *be* from *because* is more serious. In *advantage* the loss of *age* does not seriously impair the legibility of the word but the loss of those letters in *language* makes a great difference. From this it follows that a long word can better bear shortening than a short one, and that it is dangerous to touch a leading syllable unless, as in *honour* and *however*, an indication is given by the line. *Among*, *because*, and *language*, must therefore be memorized. The outlines for *most* and *must* (*mut*), and *use* should also be learnt by heart.

EXERCISE V.

98. Write the above words several times, frequently checking the proportions of the outlines. The habit once formed of writing the characters in proportion, no further serious difficulty will be met with. Write out the following sentences :—

1. It is not thus that you ought to be.
2. There was a man sent from God.
3. Let your word be ever true.
4. We shall be often there.
5. He is not there, but he will be yet.
6. You know that as well as I do.
7. But this is not what it should be.

8. It would be of much advantage.
9. What will he do with it?
10. Do not let him have it.
11. These things are not to be had.
12. And God said (*S₁d*), Let there be light and there was light.
13. And the Word was with God.
14. All things were made by God.
15. There was'nt anything in it.
16. No light was left in one of them (*TH'm*) at all events.
17. None of these things were made by him.
18. You speak of peace when there is no peace.
19. It was not all that it might have been.
20. Don't go down yet, I want to speak with you.
21. I find that I have not had it.
22. I cannot find them, they are not in the way.
23. You know there is no one who can do it.
24. That may be very true, but I do not believe it.
25. I think it is not so well as it has been.
26. It was not so in the beginning.
27. The Secretary is a man of great spirit.
28. Search the Scriptures, for in them ye think ye have eternal life (*search, s'rCH*).
29. The important part of the question was left alone (*'IN*).
99. In writing the preceding four and the following exercises, the student will find it convenient to use the specially-ruled exercise books.
100. In par. 61 reference is made to the frequency of *S*, and its various forms, auxiliary and primary, were enumerated. The utility of auxiliary characters has also been alluded to (par. 76), but it will now be expedient to further develop their application. The primary consonants alone will express whatever can be uttered in English, but occasionally the long characters coming together would make ungainly outlines, and the use of the neutral vowel would be inconveniently frequent. The employment of auxiliary characters greatly condenses the outlines, and facilitates easy joinings. They also play an important part in the syllabification of the outlines, as will be exhibited in the course of these instructions, but for the present the student will only employ them for the sake of facility. In the preceding

examples many of the auxiliaries are used, the following occurring (in addition to the various forms of *s* mentioned in par. 61), on page 18, viz. : *ms* represented by a large ring with a straight continuation over the stem, as in *terms* and *premises*; *sn* by a final small ring, as in *subordination* and *creation*; *x* by a small ring with a curved prolongation over the other side of the stem. The *c* is used initially in *casuist*, and finally in *make*=*mac(k)*, and *st* is used medially in *a first class*, which is written a FrstKls. *Possibly* is expressed by pSBl(y); *woman* by w(o)m'n; *would be* by w(u)dB, and *girls* by g(i)RLs. In the opposite table, the most facile auxiliary, viz., the loop crossing the stem, is given to *s* and *ss* (see lines 5 and 6). Initial *s* followed by a curve has the ring.

101. The pupil may now commence "word building" for himself.

The words which are familiar, that is, those which the student has already met with, must be written according to the models; new words, which may be regarded as unfamiliar for the present, even though they may be found common enough as the student progresses, must be written fully according to their sound elements, by the following rules:—

102. The first syllable. If a vowel commences, it will be expressed, as in *each* or *either*, with a vowel character; or as in *argue*, *although*, with a character which implies both consonant and initial vowel, or it will be indicated by the line as in *opposition*, *into*, and *am*. If a consonant commences, it will be followed by a vowel or by *l* or *r*, if it is any other simple consonant than *S*, *T*, *G*, or *D*, (the silent letters at the beginning of such words as *know*, *wring*, *psalm* being of course not considered). As stated in par. 33, the combinations of initial *S* are *S K* (*S Q*), *S M*, *S N*, *S P*, *S T*, and *S W* to which may be added *S P H* (*s f*), *S L* and the regular primary *S H*. *T* is only followed by *H* (forming the primary *T H*) and in a few words by *W*. *G* and *D* are also in rare words followed by *W*. To deal with the rare words first; *twelve* would be expressed by *tWlv*, *Guelph* by *gWlf*, and *dwarf* by *dWrff*, the auxiliary in these cases commencing the word. *Thwart* would follow the same rule. In general, however, the first consonant is expressed by its primary character. With the few exceptions mentioned the simple

consonants and the digraphs, when initial, will, if not followed by a vowel, be followed by either *r* or *l*. When followed by a vowel they will have the simple forms, as shown in the primary alphabet; when followed by *r* they will have the *R(ight)* curve coalescent form, and when followed by *l* the *L(ef)* curve coalescent form. As the above embrace all the possible combinations of initial consonants, and as they are all obtained by a single stroke (except the rare cases mentioned, to be at a later stage brought within the rule), it necessarily results that a vowel must be read at the end of a primary that commences a word unless an outline is of the special form termed a compendium (par. 49).

103. Second syllables. The primary of the second syllable will be joined on to the first without lifting the pen unless to gain some particular effect as in *to* [*com*]pete, *cas*[ui]st, *v*[io]lin, &c., as explained in par. 52. The vowel is read at the first junction, and the next junction will generally, but not always, mark the place of the vowel, as the second syllable will sometimes end with a consonant and the third begin with one, in the common syllabification. At the present stage the common syllabification will be followed and the rule as to second, and succeeding junctions, when they occur (which will be very rarely), will be extended as follows:—"A second junction will mark either the position of the vowel *or* the point of separation between two syllables."

104. In par. 93 it was shown that elements could more safely be omitted from long than short words. Blanchard (1786) laid down the principle that if the first syllable and the succeeding consonant are clearly indicated the rest of the word may generally be left to take care of itself. Gawtress (1819), a great teacher in his day, says the plan of showing the first and last portions of long words, leaving a vacancy to be filled up by the sagacity of the reader, cannot be too much recommended. Blanchard's plan must not be used except in specific cases, but that of Gawtress may be freely adopted as the student progresses. For the present, however, only words specified must be so treated, all others being written out in full. The brevity already secured enables one to do this easily, and still be writing with far fewer marks than any other system can show. The vowels

which it may not be expedient to indicate at a second junction may therefore be expressed by the universal vowel (*see* par. 76). It may always be employed to avoid hesitation or an awkward joining. To avoid inconvenient junctions, *CH* and *J*, which have the steep up-slope, may be made nearly as flat as *SH*; because, if misread for *SH*, they would still be legible, the proper sound being necessarily suggested thereby. *Gentler* (line 2, p. 18), would be easily read even if actually written *Zhentler*. So in *teaching*, and other words.

EXERCISE VI.

The table of auxiliary characters opposite furnishes many useful monosyllables.

1. Copy from line 1 the following—*alike* and *game* in the 2nd position; *grief* (*grieve*) in the 1st position, and *growl*, *glove*, *gruff* (*grove*, *groove*) in the third position.

2. From line 2 form *bosom*, *tombs*, *crumbs* (3rd position), *teems* (*times*), *gleesome*, *crimes* (1st position), and *calms*, *Thames*, *claims*, *has made it*, and *massive* (2nd position).

3. From line 3 form *sink*, *sneeze*, *mission* (1st position), *snake* (*snack*, *sneak*), *action* (shew the initial vowel without writing it), *mason* (2nd position), and *sunk*, *snows*, *occasion* (vowel to be shewn but not written), *caution*, *motion*, *volition*, and *evolution* (vowel to be indicated) all below the line.

4. Line 4 has *canes*, *clans*, *cranes*, *millions*, *cleans*, *cones*, *crowns*.

5. Line 5 supplies *supple*, *supply* (final vowel indicated), *sociable*, *cross* (*crows*), *closes*, *suck* (*soak*), *cries* (*crease*), *sick* (*seek*), *cease*, *cress* (*crass*), *classes*, *sack*, and *cakes*.

6. The remaining lines afford *tint*, *tinned*, *taint*, *tanned*, *taunt*, *toned*, *tuned*, *vide* (for *divide*, V'd), *vote*, *vowed*, *thieve*, *thy bond*, (*thy band*, *they bend*), *kith*, *cheek*, *check*, *joke*, *choke*, *chuck*, *catch*, *cage*, *jumble*, *village*, *fig* (Fg₁), *fog* (Fg₃), *vague*, *vogue*, *cover*, *giver*, *govern*, (gvr^{an}), *milk*, *mulct* (M'l₃k), *circle* (s'rk).

THE AUXILIARY CHARACTERS.

Line 1.

'IK
'mK'mVr
'lVlG'm Gr'l
G'l Gl'lG'p ('b) Gr'f ('v)
G'f ('v) Gl'f ('v)

Line 2.

sm'D't

B'sm

ms'V

T'ms

Gl'sm

Kr'ms

Kl'ms

Line 3.

sn'K

snS

K'sn

M'sn

Vl'sn

Ml'sn

Line 4.

ns'B'n

ns'K't

K'ns

Kl'ns

Kr'ns

Ml'ns

Line 5.

s'Kr'nt'sn

sPl

s'sBl

Kr's

Kl's's

s'K

C's

K'x

Line 6.

t'NT or
d'NTV't or
V'd

th'V

th'B'nd

K'th

Line 7.

ch'k or K'ch or ch'MBl or Vl'ch or V'k or k'V'ror M'l'k or S'r'k or

j'K

K'j

j'MBl

Vl'j

V'g

g'V'r

M'lg

S'r'g

and somewhat common, the omission is legitimate. The *n* is implied by the *secant* position.

107. The abbreviation *Drc* is an instance of Blanchard's abbreviating device, which has been very generally followed by other inventors ; but in this system, to indicate the fact that these are abbreviated forms, they are made to end abruptly on the line, as a hint, when they come to be read, that something (in this case *ness*) has been cut off from the tail of the word. This is termed "abbreviation by curtailment." A great advantage of the plan is, that, as a rule, the omitted part can be at any time attached in its proper position. The same advantage is retained in the corresponding device of "*elision*" by the line, as in *him* (see par. 69). Both the small ring for *sn*, and the large ring for *ns*, are applied finally with these significations to curves and straight stems ; but, as initials to curves, they have merely the signification of *s* and *ss* respectively. *Subordination* is an example. When medially employed *s* and *ss* simply are implied by the two rings, but when initial, if attached to straight stems, they have the same signification as when final. *Sm* and *ms* are distinguished from *sn* and *ns* in curves, by crossing over the stem, as seen in *terms* and *premises*. In the latter word, a small ring is formed on the back to add *s* to *ms*. This is exceptional ; the meaning, according to the general rule, would be *sssn*, but, as this combination would never be necessary, the above form is allowed to do duty for *mss*, which is rather common. To express *nss*, the small ring is turned inside the large one ; and to express *sns*, the *s* loop is first formed, and *ns* added by turning against the direction in which the sun moves, as before explained.

108.—EXERCISE IX.

1. Attach both initially and finally to the primary *ST*, all the combinations of *s* which have been described.

2. Attach the same series, as far as possible, to the outlines *musical* and *turn*.

3. Transcribe, in longhand, all the forms hitherto given in shorthand in the order of their occurrence, numbering the page where found.

109. The mixed exercise below is given as a model upon which the student may with great advantage form a number of paraphrases, or rather variations, in the application of the words he is already familiar with. As practice in reading and writing Shorthand and in composition with Shorthand signs will be obtained by the multiplication of similar exercises, this should be thoroughly studied. All new words not strictly in analogy with known forms must have all their elements expressed. Where signs are given, the corresponding words must be read; where words are given, the proper signs must be written. Each sentence is to be completed according to the will of the student. Of course the ellipsis must be filled up so as to produce a sentence more or less logical. A ruled line is supposed to pass along the bottom of the type.

EXERCISE X.

VARIATIONS OF THE FAIR FIDDLERS.

1. From the we might possibly &c.

2. all (Lⁱ) which has been put forward in opposition to us is, &c.

3. It would be wrong (R^{eng}) to put forward such reasoning serious (s'R'S) argument, although that would be which has, &c.

4. would not put the gentle sex with, &c.

5. The musical casuist, however skilful } make me understand
such reasoning as, &c.

6. We ——— have understood his arguments had they
been put forward in language more logical and, &c.

7. ——— teaching would never make ——— of a man or
woman either who had not ——— for, &c.

8. Musical teaching / 2 may often bring a great advantage to
one who ——— possibly ——— in other, &c.

9. In the beginning all things were kept ——— necessary for
peace and order in the, &c.

10. Quite as much care f' should be taken of the teaching which
has to be given to the gentler sex as that which has, &c.

11. Subordination may ——— the other sex too gentle to, &c.

12. Since the ——— of the world there has been no more im-
portant, &c.

13. To meet such a woman on equal terms is not, &c.

14. Such a consideration might be quite logical, but it would not
be very, &c.

15. The ↓ is one of the most extraordinary among musical, &c.

16. We have long waited for a turn in the ↙ &c.

17. Having played } for centuries, woman has become too
gentle to compete, &c.

18. We | ~ the violin have become musical ~ we have
had too many other things to, &c.

EXERCISE IX.

Write in Shorthand each of the first ten verses of the Gospel of St. John, with verbal variations, somewhat as follows:—

Verse 1. The Word is God from the beginning. He was with the Creator before the beginning of creation, and He was the Creator (Kr-Tr).

Verse 2. This is he who was with God in the beginning of time (T₁'m) and who is to all eternity (eTr^{an}T').

Verse 3. Everything was made by him, &c.

MENTAL READING.

110. No exercise can be more beneficial for every kind of mental training than that of being able to see with a distinct mental vision the forms of objects which are occupying the thoughts. It is probable that all who write faultlessly the diffi-

cult orthography of the English language have this faculty in a high degree of perfection. During the "Spelling Bee" movement of some years ago it was found that the most successful competitors in those contests were men who, on hearing a word pronounced, instantaneously made a mental picture of it and spelt it as from a photograph. In acquiring the art of stenography mental reading of this kind greatly facilitates the process of learning to read the Shorthand signs. In order to develop this faculty, the student should several times every day endeavour to see clearly in his mind's eye the models which have been furnished in the preceding lessons, and he should commit to memory for that purpose both the "Fair Fiddlers" specimen and the passage from the Gospel. Whether walking or riding, in the dark or in the daylight, he will then be able at all times to exercise himself in reading off the Shorthand outlines as well as in forming them. He will sometimes find himself in society, with conversation going on around him in which he is taking no part; he may turn such occasions to advantage by mentally putting into its Shorthand form each sound as it falls from the lips of the speaker. In short, if he will take a little trouble to acquire the power of mental reading, he will gain opportunities of almost unlimited practice in stenography, and, at the same time, develop a talent which will be useful to him in innumerable other ways.

EXERCISE XII.

1. Trace mentally, with due proportions of length and proper inclinations, the lengthened primaries which add initial *S*; viz., *SK*, *SM* 'MP (put in the vertical line mentally), *SNG* (upward), *ST* (downward), *SP* and *SW*.

2. Form the triple consonantal coalescents *STr*, *SPr*, *SPl*, *SKr*, *SKl*, 'MPr, 'MPl mentally in the same manner, repeating the process frequently until the outlines come readily and rapidly to the mind. See Supplementary Characters in the Chart.

3. Proceed in the same manner with the compendiums *SMr*, *SMl*, *SWr*, *SWl*, *STl*, *SNGr*, *SNGL*.

4. Trace mentally the third length primary of each group, first in the usual order, commencing with M (Group I.), and next, in backward order, commencing with G (Group VI.).

5. Trace, in the same manner, the medium and short primaries of each group.

6. Run off the alphabet mentally in the A B C order ; the signs to be all joined up without a break, and the universal vowel to be put in between A and B, E and F, G and H, N and O, U, V and W, just as it would be in writing the signs down. Let *C* and *Z* in the mental series be expressed with the primary *S* ; *Q* as *Kw*, and *X* as *Ks*, because they are all medials.

7. After a certain degree of facility has been acquired in calling up the mental pictures, the mental and the writing exercises should be alternated, the above order being first followed and then reversed.

RÉSUMÉ OF PRINCIPLES AND INSTRUCTIONS.

Before proceeding to deduce the rules it is desirable to recapitulate the main points dealt with in the preceding paragraphs.

III. Primary minor and auxiliary characters are referred to in paragraphs 11, 35, 49, 60, 73, 76, 91, 100, 102, and 103. The primaries are twenty-five in number, viz., the triads of the six groups, and the lengthened primary of each group with the extra primary of the horizontal group, which, being always preceded by either a vowel or a vowel and consonant, is available for 'MP. The minor consonants, if we include R and L, number eleven, namely *r*, '*r*', '*l*', *h*, *w*, *wh*, *ws*, *s*, *ss*, *c* (hard) and *g*, with the various thickened compendiums. R and L are regarded as minor consonants when they do not commence a word, and they are then represented by the small letters *r*, *l*. The auxiliary hooks and loops are also minor characters, but, unlike those just named, they never stand alone, hence their designation of auxiliaries. The loops represent *ch*, *j*, *k*, *g t* (*d*), *th*, *s*, *ss*, *st*, and *x*, as set out in the plate at page 47. The hooks represent '*b* (*p*)', '*f* (*v*)', '*m*', and '*l*' respectively.

112. The minor characters, and vowel ticks, may be represented in type by small letters, and the primaries by capital letters. Thus, *starting* might be expressed by ST'rt'NG. The rings represent various combinations of *s*, with *m* and *n*. The terminations *tion*, *sion*, *cion*, *cian*, &c., are all represented by the small ring *sn* (= *shn*). When detached *shn* carries a preceding vowel, as *ation*, *osion*, *ution*, &c., with generally another element left out and indicated by the hiatus. Example, *creation*, to which may be added *consideration* (K^{an}-sn), *destination* (D'st-sn), *exasperation* ('xSP-sn), indignation (°ND'g-sn), observation (uB-sn), transubstantiation (Tr^{an}SB-sn), and publication (P'B1-sn).

113. Abbreviations are referred to in pars. 5, 12, 52, 56, 93, 97, 104, 106, and 107. The principal means of abbreviation are the employment of (*a*) the coalescents, *r*, *l*, *t*, and *d*; (*b*) the compendiums, which include in these coalescents an unimportant vowel sound, that may safely be treated in many words as non-existent; *per*, for example, as well as *pr*, may be represented by Pr; (*c*) *logograms*, or special forms, called also memory-signs; and (*d*) *stenograms*, or such phrase groups as, being composed of common words, are written in a single stroke. The stenograms are referred to in pars. 57, 58, 59, 60, 63, 64, 95, and 105; the logograms in 40, 53, 54, 70, 73, 74, 94, and 91; and the coalescents and compendiums in pars. 29, 30, 73, 90, and 106. The following abbreviating devices are also adopted:—(*a*) “elision,” which consists in cutting off the leading consonant or syllable of a word and commencing the remainder at a line to indicate the fact. Ex. 'Nr for h'nr = honour; (*b*) “hiatus,” by which a syllable is left out of the middle of a combination; (*c*) “curtailment,” where the line cuts off something from the end of a word; and (*d*) simple omission, which only takes place in very common words and in such a manner as to leave what remains perfectly obvious. *Him* (pars. 69 and 107) is an example of elision; of hiatus several examples occur in pars. 43, 52, 64, 84, and 106; of curtailment in pars. 77 and 107; and of omission in *strength*, *length*, *with*, in all of which the final *h* is omitted; *teaching*, *reasoning*, in which *g* is omitted; *beginning*, where *ing* is omitted; *character*, where the medial *c* is omitted; and *forward*, where *w* is omitted.

If necessary, the omission of a consonant can be indicated by placing a second stem full-butt against the leading one, thus Fr'|rd for *forward*. This is equivalent to the device of "elision," the *w* being shown to be cut off from *ward* by the stem Fr, as the *h* in *honour* was shown to be cut off by the horizontal line.

114. Advantage is taken of the fact that Q (with its own sound) never ends a word in English, to abbreviate a large number of current words which contain a sound of K medially placed. The final dot for Q shows at a glance that the word is a contraction, and the mind is at once turned in the proper direction to find the right word, which thus becomes almost as obvious as if the omitted portion had been expressed. Examples: Agriculture = 'Gr'q; application, 'Pl'q; circumstance, Srq; frequent, Fr'q; calculate, Klq; refractory, R'Fr'q; communication, C'M'q; reluctant, R'l'q; and many others. The smaller dot for C may often be made useful in a similar manner as in B'c for become; but, as many words end with the guttural sound of C, the curtailment should, as often as possible, be indicated by finishing at the line as in Drc for darkness.

115. The line of writing is central and corresponds to the position of the middle series of vowels or those made from the wide open throat as, *ah*, *aw*; the space above the line corresponds to the vowels of the upper series which are produced when the point of the tongue is nearly in the position which is required to form R. These are the lingual or palatal vowels, *ee* and *ai*. Finally the space below the line is the region of the lower series of vowels, *au*, *o*, and *oo*, which, being formed with the assistance of the lips, are called labial vowels. The upper vowels therefore occupy the first position and the lower vowels the third position. The second or middle position, or the space adjoining the line on its upper side, is that in which the great majority of outlines are written. The numerous functions of the line are referred to in pars. 42, 48, 55, 69, 70, 72, 73, 74, 77, 91, 94, 106, and 107. To indicate some of these functions by common type in what is termed stenotypy the letters *e*, *a*, *o*, *u* may be employed, *e* and *u* or *au* corresponding with the first and third positions and *a* and *o* to the upper and under sides of the horizontal line. To express in stenotypy an indicated upper

vowel a small *e* may be prefixed level with the top of the type to show that a consonant touches the line initially in the first position, example, *am*=^eM (page 29); *me* touching the line finally is similarly expressed, the small letter being placed after the capital, *me* (*my*)=M^e. *To* in the same specimen may be expressed as T^a, the final vowel being implied by touching the upper side of the line; *own* has the initial vowel indicated by touching the line at its under side and this may be termed the *o* position (thus *own*=^oN). In par. 92 *other* occurs. This is expressed by *thr* with its initial end touching the vertical line, some distance below the horizontal line (see plate page 40). This may be called the *u* position. *Other* is therefore expressed by ^uTHr³. The secant position, as in *turn*, *can*, *man*, &c., may be termed the *an* position, a middle vowel being in most instances implied with the *n*,—thus, *man*=M^{an}; *can*=K^{an}. An upper vowel and *ng* is implied in *being*, *all things*, *daring*, *anything*, and a lower vowel with *ng* in *strong*, *long*, &c.; the first four crossing the vertical line in the upper and the last two the same line in the lower position. These are named respectively the *eng* and the *ung* positions, the former intersecting the upper portion and the latter the lower portion of the vertical line, example, *language*=L^{eng}, *strong*=S^{Tr}^{ong}.

116. A further use of position was referred to in par. 107 as the isolated position which is used to imply unexpressed terminations in certain very common words. *Such*, *these*, *those* (p. 29) are of this class, to which *this*, *thus*, *peace*, and *use* are added in par. 94, all seven being words so frequently recurrent that they ought to be expressed in the shortest possible manner. S³, which represents *such*, is clearly a compendious form. In this system at least one vowel must always be expressed, indicated, or implied in every word. Then *S*, being simple and a primary, must have a vowel after it, for if it had one before it, it would by an invariable rule be either expressed or indicated, and if nothing more than a vowel followed it would, by another invariable rule, be shown. It of necessity follows, therefore, that S³ includes a consonant and a lower vowel, and hence S³ is a compendium of which the first portion must be either *so* or *su*, the remainder of the word being left indefinite. It is only necessary, therefore, to restrict the area of possible additions to

make this simple compendium easily read for a particular word. The addendum is nearly always a sibilant, most frequently *s* or *ch*, but it might be *st*. The student knows that it cannot be either *st* or *s* in this particular case, because there is no very common word of the form *sos* or *sust*. S^3 must therefore be *such*, and can be nothing else. TH^3 in the same way must mean *thus* and TH^1 *this*, and so on to the rest.

This principle, which may be termed that of the isolated position, only applies to certain primary consonants, the minor characters, the lengthened characters, with R, L, F, and the primaries of the CH group being not affected by it. Sibilants are implied in *peace*= P^1 ; *mis*= M^1 ; *voice*= V_3 ; *wise*= W_1 ; *whose*= W_3 ; *these*= T_1 ; *those*= T_3 ; *dis*= D_1 ; *this*= TH^1 ; *thus*= TH^3 ; *says*= S^1 ; *she is*= SH^1 ; *shows*= SH^3 ; *yes*= Y_1 ; *use*= Y_3 ; and *gives* (*gies*)= G_1 . In the following, *st* is implied:—*Post*= P^3 ; *boast*= B^3 ; and *most* (*must*)= Mt^3 . The sign of the infinitive is implied in *to be*= B^1 ; *to have*= V_1 ; *to know*= N_3 ; *to do*= D_3 ; *to come*= K_3 ; and *to go*= G_3 . To two words *ch* is implied, viz., *much*= M^3 and *such*= S^3 ; and to two others *m* is implied, viz., *name*= N_1 and *came*= K_1 . As explained in par. 97, the useful words *most* and *must* should be memorised, as they are to some extent exceptional.

117. A vowel expressed by a vowel mark will range with the type. Thus *it* (p. 29) is expressed in stenotypy by (et); *a* (p. 18) by (a); and *each* (par. 89) by (eCH). The dot for *the* will be expressed by (e); that for *and* by (an); and that for *of* by (o), which indicate their vowel sounds. To indicate detached vowels the double form *ee*, *aa*, and *ou* in italics will take the place of the e, a, o, and the hiatus will be indicated by a hyphen. The secant position obtained by crossing one stem over another, as in *reasoning*, will be distinguished by putting the " in italic type. The primary characters will be expressed by small capitals and the minor characters by small letters of roman type, and their positions by figures written at the higher level to indicate horizontal and upward strokes, and at the lower level to indicate the downward strokes; thus, *be* (*to be*), *these*, and *have*, all in the first position, are expressed by B^1 , T_1 , V_1 , and *but*, *those*, *should* all in the third position, by Bt^3 , T_3 , SHd^3 . The second position, which is the general line of writing, need

not be figured, but occasionally it will be marked 2 in the usual way. (See illustration on next page. England).

118. By these arrangements we are enabled to indicate by ordinary type the exact outline of any word in its proper position from which a mental picture of the outline on the one hand or the long hand representation on the other may be conveniently derived. The first line of the plate on page 29, for example, is thus expressed in stenotypy, *the*=e ; *and*=an ; *of*=o ; *to*=T^a or T₂ ; *in*=[']n¹ ; *a*=a ; *is* (*has, his, as*)=^s1 ; *that*=THt¹ ; *it*=et¹ ; *him* (*am*)=^eM ; and *or*=[']R₃.

119. The outlines of the first line of the "Fair Fiddlers" specimen (page 18) may be thus expressed—ST[']rt'NG Fr[']t₃ Pr[']ms's THt¹ C[']NTr'S o s'B³rd'n'shn. The sibilants *TH*, *S*, &c., are generally written upwards, but may be written downwards. If written downwards from above the line, a sibilant would be in the second position, requiring no position number ; but if written downward and below the line it would have the number at the bottom of the type instead of at the top—thus, *argue that* would be expressed by [']RGTHT₃.

120. The first line of the passage from the Gospel (p. 32) may be thus expressed—[']ntb'G^{an} wst₃ W[']rd₁ ^{ant} W[']rd, ws₃ w[']t₁ Gd₃ ^{ant} W[']rd₁ ws₃.

As a rule, only the first primary in an outline will intersect the line to add [']n, but if necessary the second primary may do so. If two or more stems cross the line only the first will carry the signification of [']n, unless there is a hiatus, in which case the succeeding primary will be reckoned as a first primary. Example, *understand* (par 89)=^oND-ST^{and}. The words of par 92 will serve as a model of this notation (see plate at p. 40.)

EXERCISE XIII.

Express in type notation or stenotypy.

(a) The sixty commonest words, p. 29.

(b) The specimen on p. 32.

(c) The specimen on p. 18.

(d) The outlines in the plate at p. 40 and p. 44.

EXERCISE XIV.

Picture mentally the outlines of Exercise II. and III., and express them in stenotypy one by one. Adopt the same plan with "The Lord's Prayer," p. xviii., and with the words in pars 92, 93, 94, and 95.

EXERCISE XV.

Render into long hand the following verse of Dr. Westby Gibson's song "England :"—

etw'st H'Na iL and t(he) 'P¹ iL¹
 andt(he) SN'wt iL¹ oF₃ y'r₃
 an(d) ST'l₁ D'Th't B'SK in¹ eV^{ans} Br'lit SM'l¹
 an(d) R'P^{an} Ta Bl³M B't³ (th)e M'r³
 Fr¹ Gr't'r in¹ W'r₁ M'r³ SPL^{an}D'd in¹ P¹
 TH^{ant} uLd³ eSr¹N Kl'M
 an(d) R'CH'r in¹rts TH^{ant} Dr'mL^{and} oF₃ Gr'S
 'r³ R³M in¹r Pl¹M^e Pr¹M
 'r¹ S^{ans} (ha)V¹t uR³NT M'd³ oF TH't³
 w't(h) (th)e D'SH oFt³ q¹K N'rs₃ Bl'd³
 an(d) 'r¹ D¹Tr's w't(h) Gr'S an(d) Bwta Fr₃aut
 'r¹ in¹D'd (th)e¹ Tr₃(ue) andt(he) G'd³.

The longhand representation would be as follows, the hyphens representing vowels, either necessarily implied, indicated by junction or by vowel position, and the elements in brackets being implied but not expressed.

(i)t w-st(he) h-ne(y) Il(e) &t(he) (h)ep(y) Il(e)
 &t(he) sn-wh-t(e) Il(e) of y-r(e)
 & st-l d-th -t b-sk in evans bri(gh)t sm-l(e)
 & r-pen ta bl-m b-t [(th)e] m-r(e)
 f(a)r gr-t-r in w-r m-r spl-nd-d in p(eace)
 thant(he) old es-r-n [Assyrian] cl-m(e)
 & r-ch-r in-rts thant(he) dr-mland of Gr-c(e)
 (o)r R(o)m(e) in (he)r p(a)lm(y) pr-m(e)
 (he)r s(o)ns (ha)v(e)t(he) (o)r-nt m(oo)d of th-(gh)t
 w-t(h) (th)e d-sh oft(he) q-(c)k N-rs(e) bl-d
 & (he)r d-t-rs w-t(h) gr-c(e) & b-wt(y) fr-(gh)t
 -r ind-d (th)e tr(ue) &t(he) g-d.

121. Turn the longhand into shorthand and compare it with the

above, correcting if any variation be observed. The primaries are to be used wherever capitals are employed in the stenotypic representation and auxiliaries where small letters are employed. The figures, as already explained (pars. 111 to 120), and the other signs represent the positions, the general position on the upper side of the line being meant when the figure 2, or no figure at all is given. The position figure is also usually omitted when the position is sufficiently defined by the superior letters ^e, ^o, ^{an}, &c.

122. Each primary character in the alphabet, when isolated, represents a common word, except NG, CH, and J, which must never be isolated, because their upward direction could not then be distinguished. Such monosyllables as *each, joy, ing* (they are not numerous), must always show a vowel attached either initially or finally, so as to indicate the upward direction of the primary. The other straight primaries add *s, st, ch, or m*, or the sign of the infinitive, *to*, as explained in par. 116. L in the first position, *i.e.*, L¹ represents *all*, L³ represents *law*, R¹ represents *right* and *write*, and R³ *raw* and *row*. The alternative sign for *r* (^r) is read *are* and *air* above the line, and *or* below it. The coalescent and the supplementary characters do not take any additional signification when isolated, because they are already capable of forming monosyllables as compendiums, by reading a vowel between the consonants coalesced. Thus Pt³=put, Nr²=never, Nr¹=near, SM¹=same, SM³=some, Mr³=more, Trt³=truth, &c.

EXERCISE XVI.

1. Express as many common words as possible by the simple primaries in analogy with the words in par. 116.
2. Write all the common words you can with the thickened primaries in analogy with *put, but, could*, &c.
3. Write one common word for each primary coalesced with *r* in analogy with *press* (Pr), and another in analogy with *poor* (Pr³).
4. Write a common word for each primary coalesced with *l* in analogy with *bell* (Bl), and another in analogy with *bull* (Bl³).
5. Write, with the supplementary characters, as many

common words as you can in analogy with *star*, *score*, *spread*, *super*, *still*, *stole*, *smile*, *small*, *swear*, *swell*, *important*, *something* (SMt³), *singular* (SNGl¹r), *angle* (aNGL), *start* (STrt₁), *smart* (SMrt¹), &c.

EXERCISE XVII.

1. The following coalescents of *t* and *d* are to be expressed each in a single stroke—'Pt, 'MPt 'MBd, 'NT('ND), 'NTr ('NDr), 'NTl('NDl), 'Ft, 'Kt.

2. Let the following coalescents of *r* and *l* be each expressed in a single curved stroke—Fr, Fl, Tr, 'Tl, 'Nl, Dr, 'Dl, STr, 'Str, 'STl, THr, 'Thl, SHr, SPr, SPl, SKr, SKl, Pr, Pl, 'Pl, Br, Bl, 'Bl, 'MPr ('MBr), 'MPl, ('MBl), Kr, 'Kr, Kl, 'Kl, Gr, Gl, 'Gr, 'Gl.

3. All the remaining coalescent forms in the alphabetic chart are denominated compendiums, a vowel being always found between the consonants coalescing. Express these in stenotypy, shewing, by an apostrophe, the place where vowels may come in.

4. Thicken all the curving coalescents in the middle portion of the curve to add *t* or *d*.

5. Write their equivalents in stenotypy, reading *t* or *d* BEFORE *r* or *l* in the NTr, NTl combinations, and AFTER *r* or *l* in all other cases.

THE VOWELS.

123. There is an undeniable economy in the employment of vowels written in the outline where they are necessary, as shown in pars. 36, 60, 75, 84, &c., &c. Detached vowels will nevertheless occasionally serve a useful purpose. They consist of three ticks, each having two thicknesses and two positions (viz., the beginning and end of stems), making twelve marks for the twelve simple vowels *ee*, *ai*, *ah*, *au*, *oh*, *oo*, long and short; curved marks for *I* and *ou*; an angular mark for *oi* (see chart); an elliptical mark for *ew*; and a smaller ring than *s*, or a round dot for the natural or universal vowel.

The words *to*, *too*, and *two* are usually expressed by T^a, but they might all be accommodated with a different form, if desirable. The preposition *to* being more frequently used than

either the adverb *too* or the numeral *two* must retain the Tⁿ already given to it as its representative, but *too* might be expressed by T₃u, which means T in the 3rd position with a vowel tick attached finally, and *two* by Teu, which signifies T in the 2nd position with the vertical vowel tick, made thick and placed in a detached position after the primary near the bottom of the stem. In a similar manner *eight*, *ate*, and *ait* might be distinguished, the first being expressed by ^eT₁, the second by aT₁, and the third by ^{ai}T₁, the first outline touching the line initially, the second having the initial vowel tick, and the third being written in the first position and preceded by the detached diagonal tick which represents the sound of *ai* when placed near the top of a stem (see par 8). A vast number of sets of words having the same sound but different spellings and meanings can thus be differentiated. Detached marks may be left out when working at a high speed and put in afterwards.

124. The utility of the lines as indicators of vowels and for other purposes is shown in paragraphs 42, 48, 50, 55, 69, 72, and 77. Both the horizontal and vertical lines may be employed in one outline, the latter to supply an initial, and the former a final or medial vowel. Examples, *any*, *into* (paragraph 72); *even*, *again*, *upon*, *opinion* (paragraph 92).

125. The advantage of forming phrases of very common words is illustrated in paragraphs 57, 58, 59, 60, 64, 95, and 105. The saving of ineffective pen-movements by phrasing during the process of note-taking offers a strong temptation to abuse the power. This system lends itself in a remarkable degree to phrasing, the author having often written as many as forty or fifty syllables together in a natural series of joinings. The disadvantage is felt when the outlines have to be read off. Long outlines are, of course, not obvious at a glance, as the great majority of the "Compendious Shorthand" outlines for separate words are, and they cannot, therefore, be so speedily deciphered. The student should, therefore, confine himself to the specimens of phrases he has met with in the course of the lessons and to others in strict analogy with them. If he hesitates whether he should group certain words into a phrase or not, that fact alone should warn him *not* to do it. Any mental hesitation is sure to involve a greater loss of time than that

saved in phrasing. Hence, in writing, no phrase should be attempted which has not been practised beforehand until it is perfectly familiar unless it is one which the hand forms spontaneously (as it were). Such phrasings as are not both usual in speech and natural to the hand are better avoided by the learner (see paragraph 64). Frequency of recurrence in this, as in every other part of the practice of the art, is the touchstone by which to test good from bad. A phrase of infrequent recurrence will not usually be a desirable one. The habit of phrasing according to the rythmical impulses of a speaker may, however, be cultivated with advantage by the reporter who has acquired a correct and clear style of writing "Compendious Shorthand."

The most useful phrases are the stenograms (paragraph 57), in which two very common words are combined in one primary stroke, and the phraseograms, in which each word in a group is fully represented by a single element. In most systems this could not be safely done unless some special means of indicating phrase groups were employed, and it is not one of the least advantages of this compendious system of writing that so large a number of words are expressed as *primes* (that is with a single primary stroke), as to give a very extensive choice of words that can be safely joined up together. In cases where a clash could occur phrasing must, of course, be avoided.

In the stenograms *from*^t, *and*^t, *in*^t (for *from the*, *and the*, *in the*), the leading sign is thickened to add *the*. They may be freely employed, and the following, of the same analogy, may now be added:—*to the*, Tt ; *do the*, Dt ; *for the*, Ft₃ ; *if the*, Ft₁ ; *of the*, ot₃ ; *or the*, 'rt₃ ; *are the* (art) 'rt₁ ; *have the*, Vt₁ ; *when the*, wh^{ant} ; *were the*, Wrt₁ ; the article being used enclitically in vernacular English in all these cases. *As the* and *is the* may be expressed by oST, the lengthened primary with the initial vowel indicated representing *ist*^t or *ast*^t. When thickened, the tick 'n should be written downwards, and when joined it should have the H₁ position (see paragraph 59). *On the* should always be in the H direction to distinguish it from *of the*, which is the dit o prolonged into a tick in the N₃ position. *Of the* is never joined to any other group, because it would clash with *of* (paragraph 59) ; the practice of indicating

of *the*, as well as *com*, by hiatus or proximity, need not be adopted even by the *verbatim* reporter. In paragraph 95 *not* is added by the secant device, in many useful phrases; the double-sized ring gives *as is*, *as his*, *is his*, *is as*, *has his*, &c.

126. The most useful phraseograms are such as, *there has been*, *would be*, *of that*, *of a*, *of late*, *all things*, *in all*, *in every*, *in one*, *I have*, *I cant*, *I dont*, *to compete*, *as much*, *without him*, &c., to which the expert reporter may add *to him*, *with him*, *to them*, *by them*, *at them* (=at'em), *put them* (=pu'em), *made them*, and others in analogy, *them* being implied by attaching 'm (the final hook), and *him* by attaching M (the primary stem).

Where the words are common and frequently found in conjunction the saving of initial or final vowels may be permitted by forming such groups as *on equal terms*, and it will often be convenient to show the upward direction of strokes by phrasings like *the gentler*, *too gentle*. The following may, therefore, be added to the previous examples—*more important* (M'r³MPrt³l); *are implied* or *are employed* ('R'MPlid); *at any rate* (at'N'rt); *in every sense* ('wV'r'S'ns); *in every respect* ('wV'R'SP't); *to each other* (T'CH'THr); the chairman (t'CH'rMⁿ).

NOTE.—The small italic *n* in the last combination will serve to indicate in stenotypy the difference between 'n implied by crossing the line, and, as in this example, by crossing the last stem. *Violin* would therefore be expressed V-Lⁿ, and *violinist* by V-LⁿST.

127. The first word of a phrase is mostly placed in its own proper position and governs the position of the combination, but where a second word is more emphatic the first may occasionally be put out of position. *That was made* (p. 32), *it not* (p. 47), are examples in which first-place vowels are carried to the third place under the influence of *was* and *not*, which are in their proper positions. *It was*, *they are not*, *it is not*, *it has not* would all be in the third position, for a similar reason. *In other* is written 'n¹THr to distinguish it from *another*, which is 'n²THr. *On equal terms* (p. 18) shews an example of the third place vowel *o* giving way to the more important first-place vowel *e*.

EXERCISE XVIII.

1. Practise the following additional phrase groups. *As-well-as* (SW¹'s); *of-course* (o[tick]Kr₃s); *could-not-be* (K'dNT₃B); *it-is-impossible* (etsMPSBl); *I am not* ('mNT₃); *he will not* ('INT₃); *they will not* (TH¹NT); *you will have* (Y¹₂'V₃); *more and more* (M'r^{an}M'r); *I am sure* ('mSHr₃); *I am not sure* ('mNT₃SHr³); *it is necessary* (etsNssR¹); *it is not necessary* (etsNT₁'nSr³); *it should be* (etSH'd₂B); *it should not be* (etSH'd¹NT₁B).

2. Many extremely useful phrases may be formed from the long supplementaty characters ST, SM, SP, 'MP, &c., in analogy with those given. Write the following. *If possible* ('fP'S'Bl'); *is it possible* (stP'S'Bl¹); *as well as possible* ('SW₁SP'S'Bl¹); *something is to be said* (S'Mt³st'B'S'd₃); *as long as possible* ('Sl^{ung}SP'S'Bl); *as far as can be* (sFr'SK^{anb}).

NOTE.—*The* may be attached either initially or finally, but in the latter situation it should always be represented by TH. The tick is generally most convenient in the initial connection.

128. The reference of all principles as far as possible to natural standards, such as the "motion of the sun" (*see par. 10*), has obvious advantages. Such standards are *immutable*, and therefore the same for all men and all time. Hence, where rules can be founded on them the basis is the best possible. The rule for distinguishing the right side of a consonant from the left is based upon such a consideration, the practical advantage being that the one side of an outline, no matter how tortuous and winding, will always be the right side, and the other always the left. The anomaly of regarding the outside of certain curved lines and the inside of others as corresponding, is thus avoided. The clock, being an almost universally familiar object, the hands of which move round with the sun, may be referred to by the teacher instead of the motion of the sun, as an alternative illustration. In standing opposite the clock you turn to your proper right in going round with the hands, and to your left in going against them. A right turn is therefore said to be "with the clock" (or the sun), and a left turn is

"against the clock" (and the sun). In describing a right curve your right side is the pivot, and the left side in describing an opposite curve; the former direction, when applied to downward straight lines, implying the R curve, and the latter the L curve: thus) = Fr, (= Fl. If you, in turning left, attach a small hook to a straight stem it is the 'l hook at either end, whatever the direction of the stem, but if you make a right turn you form the 'm hook. The l and m of script small-hand have similar hooks as characteristics. We may, therefore, recognise the side of the primary on which the 'l hook is attached as the l side, and that on which the 'm hook is attached as the m side. The upward coalescents for Sl, SHl, SPr, THr, &c., must exactly resemble their downward coalescent forms. This necessarily results from the rule that an R curve must tend away from a central point towards the right and an L curve away from the centre towards the left, whether the sign is written upwards or downwards.

129. There is a considerable difference in facility of junction in the different forms of auxiliaries among themselves, and in regard to the direction of the stems to which they are attached. The fact was mentioned in the preface (p. ix) that the tip-tongue letters S N T R L combined most frequently with one another as well as with all other consonants. Therefore S, ST, SM, SN, L, R, M, SS, are provided with minor characters which form the most convenient possible junctions.

130. As one of the results of a large number of experiments to test the most facile junctions, the curious fact has been disclosed, that in the majority of cases the hand finds it easier to make a right turn at the beginning of a down-stroke, and a left turn at the end, than in any other direction; but that with horizontal and upward stems the opposite course is the easier. The 'm series of initial hooks and the 'l series of final hooks, when placed to N, T, D or ST, are slightly more facile than the most rapidly-formed primaries, and the 'l series, when prefixed to S, SH, TH, and SP, have about an equal degree of facility. The author has found the comparative value of the advantageous hooks, by many experiments, to be 110 against the maximum of 100 given to N, the most facile primary, *i.e.*, they can be made more rapidly than the quickest primaries by 10

per cent. The hooks in most other combinations have the facility value of 100, which means that they are as rapid as the quickest primary. The loop *s* (as in *as much*, page 18) has the facility value of 85 placed to the horizontal stems, but placed to *S* as in *cease* (*C*'*s*) or *seize* (*s*'*S*¹) it has the value of 95. The least favourable auxiliaries are the loops attached to primaries of the guttural group, some of which take nearly as long to write as two easy primaries, such as *N'S* or *N'TH*. The unfavourable junctions usually fall in this system to barbarous and infrequent combinations, such as *gag*. (*G*₁'*g*), *caulk* (*k*₃'*k*), *goggle* (*g*'*G*₃), *kicks* (*k*₁'*x*), *crocks* (*Kr*₃'*x*), *yux* (*Y*₃'*x*), *clicks* (*Kl*₁'*x*), &c. The natural aversion of the tongue to the frequent use of gutturals has no doubt led to the habit common to all but the most careful speakers of saying *tlock*, *tlick*, when they think they are saying *clock*, *click*, &c.

131. Certain consonants can never come together in the same syllable without the intervention of vowels, *m'r*, *n'l*, *s'r*, *t'd*, &c., being very common examples. Such combinations may always be written in either of several ways, giving, in conjunction with the variety of form in the signs, an unequalled power of differentiating by variety of consonant outline without employing either position or detached vowel marks. Many different ways of expressing *ls*, *prs*, *str*, &c., may be pointed out. The very extent of this power requires that it should be subjected to certain rules in order that full advantage may be taken of it by the reporter. They are given below.

132. The frequency of recurrence of all the most usual words having been ascertained, easy rules of writing may be framed which will give to the writer of this system incalculable advantages over those using any other, not only in the rapidity of writing his notes, but in the rapidity and CERTAINTY of reading them afterwards. Lists of words showing their order of recurrence will in due course be published, and in the meantime the observance of the following principles will introduce the required degree of uniformity among "Visible Speech" or "Compendious Shorthand" writers, without tying them down slavishly to particular outlines.

133. Let the most frequently recurring words have the most facile and brief, and the most unfamiliar words the fullest, out-

lines. The rule may be memorised thus : " If you doubt spell it out. What comes again may be run in." It follows from the rule that all the expressive power possible should be put into the first stroke in the commonest words, and that uncommon words should be expressed with all their elements.

134. The consonants of the guttural group and the compound consonants often form combinations with each other, and when this is the case in any order the primaries are in all cases preferable to the auxiliaries. The combinations of Y, K, G, SK, NG, CH, J, SN, and SNG should therefore consist usually of primaries. Most of the eight consonants forming these two groups are comparatively little used, N alone being far more frequent than all of them put together.

135. The perpendicular primaries also combine more conveniently with the compound consonants than the corresponding auxiliaries, but the latter are more convenient for joining than the guttural primaries ; therefore F, V, W, when followed by downward strokes, should generally add the auxiliary signs, and the primary signs in all other cases. It will be found that downward with downward and upward with upward, *i.e.*, primary signs in *like* directions, form unfavourable junctions, and primaries of *unlike* directions favourable ones. This fact may be memorized by the formula, "*like shuns like and seeks unlike.*"

It therefore follows that stems should be succeeded either by unlike stems or auxiliaries, and that stems which cannot be so followed should themselves be auxiliaries. The stems of the N, T, D ; TH, S, SH, and P, B, M groups, which are the first, third, and fifth groups may be considered first rate leaders (or primaries) and those of the Y, K, G ; F, V, W, and NG, CH, and J groups, which are the second, fourth, and sixth may be considered second rate leaders. All these facts may be brought to a focus and memorised in the following formula : " A first rate leader (meaning that the first, third, and fifth groups are good) will seek an unlike follower or an auxiliary ; a second rate leader must have a good follower or be auxiliary."

136. Rough as these formulæ undoubtedly are, their practical advantages may be easily demonstrated. The word *consideration* when the student first meets with it may be expressed

(K^{ans}Dr'SHN) with all its five elements ; but on meeting with it again he will naturally apply the principle of the hiatus to shorten it, writing (K^{ans}s-sn), and if he were a reporter he would at length "run it in" to two marks (K^{ans}n). Yet it would be legible at any stage.

In the other case, suppose that he gets as a new word *intersection*. He would write (°NTr) without hesitation, and if he sought for an unlike or good follower he would immediately get (S) followed by another unlike (Ksn). The full outline would be (°NTrS'Ksn) which is both facile and obvious. If reporting a mathematical lecture, where the word *intersection* was constantly recurring, it could be safely "run in." The shortest form would be °NT-SKⁿ; i.e., primary NT placed to the underside of the line, with the stem cross-cut by SK ; an outline of *two intersecting straight lines* having all the suggestiveness of an arbitrary without in any respect being one. Then suppose he meets with the word *cape* for the first time. With the formula in his mind, and knowing that P, being nearly in the same direction as K, would not be a good primary, he would seek to make K at once an auxiliary and write c'P or k'P either of which would be perfectly suggestive. To get absolute uniformity (which is quite unnecessary) would require numerous rules but in the application of the principle of facility by these easily-remembered formulæ a uniformity is obtained which is sufficient in practice and does not burden the memory.

137. The hook in all positions carries a preceding vowel with the consonant, but it may be employed initially, as in *possibly* (p. 18), simply for convenience of joining, to indicate the consonant followed by a vowel, if the outline cannot be read for anything else. The final hook may take a consonant as well as a vowel before it, provided they are in the same syllable—thus *furl*=Fr₃l ; *curve*=Kr₃v. If a sounded vowel follows, the primary should generally be used. In familiar words a final vowel may often be left out if a primary finishes the outline—thus ; 'rM might be written for *army*.

138. The vertical curve () may mean either 'r or 'R, but the horizontal curve () as a rule signifies R' in a syllable following, and () similarly means L' in a syllable following. *Ry* and *ly*,

being very frequent terminations, may be always represented by (◡) and (◤). A vast number of final vowels will thus be implied without either writing or indicating them. Page 18, however, affords an example where (◡) may be attached to represent 'r to avoid an awkward junction if no clash can result (see *gentler*). *Gently* would be expressed by J'NTL', and musically M₃sKlL'. The following may be added :—*Gradual* (Gr'd'l); *gradually* (Gr'd₁L'); *female* (F'M'l); *family* (F'm'L'); *special* (SP¹l), *specially* (SP¹lL'); *alcohol* ('lK'l); *alkali* ('lK'L'); *centre* (C¹NTr); *centaur* (C¹NTr); *century* (C¹NTr'); *bier* (B¹r); *bury* (B₃'R'); *care* (Kr₁); *carry* (Kr₁R'); *fire* (F₁'r); *fiery* (F'R'); *fury* (F₃R'); *prior* (Pr¹r); *priory* (Pr'R'); *bull* (B¹₃ or B₃'l); *bully* (B₃'L'); *dull* (D¹₃); *duly* (D₃'L'); *delay* (D'L'); *dally* (D¹lL'); *annual* ('n¹N'l); *annually* ('n¹N'L'), &c.

139. A very extensive range of differentiation by variety of outline on definite principles is afforded in "Compendious Shorthand." The combination *ls*, for example, would be employed in many systems to represent any one of upwards of forty different words with only context to guide the sense to the right word.

The consonant outlines of words composed of *ls* are differentiated as follows in "Compendious Shorthand" :—*Less*, *lass* (L's); *lees* (L¹s); *loss*, *loose* (L³s); *lose*, *laws* (L³S³); *Lucy*, *lousy* (L³S⁰); *lessee*, *lassie* (L'sa); *Lizzie* (L¹S^e); *lazy* (L'S^e); *lays*, *lace* (L'S¹); *laces*, *lasses* (L'S¹s); *lease*, *lies* (L¹S¹); *leases* (L¹S¹s); *also* ('l₃S⁰); *else* ('lS¹); *ells* (^aLs); *always*, *aloes* ('l₃'S³); *ails* (*alas*)=aLs; *isles* (*aisles*)=iLs; *ills*, *eels* (eLs); *hills* (*heels*)=H₁'ls; *holes* (*hulls*)=H₃ls; *howls* (*owls*)=owLs; *allies*=¹lis; *allows*=¹lows; *Ellis* (*alleys*)=¹lL's; *alias* (*allays*)=^aL'S¹; *Alice* (*Elise*)=aL'S; *lillies*=L¹P'S; *lawless*=L³l'S; In the above list, which might easily be extended, never more than two words are written in precisely the same manner, but each form is governed by a definite consideration readily remembered.

140. On similar principles the following examples are differentiated, the elements being expressed with ample fulness without detached vowels, and with less than one-third of the manual effort that would be required in most other systems to represent an equal number of elements.

Celebrate (C¹lBrt); *celebrity* (C¹lBr'T'); *salubrity*

(s'L^{1a}Br'T') ; *anybody* (°N'B^{3d}d') ; *nobody* (N^aB'D') ; *property* (Pr'Prta) ; *propriety* (Pr'Pr'T') ; *prate* (Prat) ; *parrot* (PrRt) ; *part* (Prt¹) ; *pretty* (Pr'T) ; *parity* (P'R'T') ; *party* (Prta) ; *Press* (Pr) (word-sign) ; *praise* (Pr²S¹) ; *price* (Pr¹S¹) ; *prose* (Pr³S³) ; *prosy* (Pr³S⁰) ; *purse* (Pr³s) ; *pursy* (Prsu) ; *pursue* (PrSew) ; *pairs* (P'rs) ; *pierce*, *peers* (P¹rs) ; *peruse* (P'rS¹) ; *Parsee* (P'rsa) ; *Paris* (P'R's) ; *piracy* (P'r'S^e) ; *pores* (P₃'rs) ; *porous* (P³r'S³) ; *Persia* (P¹rSH^e) ; *Prussia* (Pr'SH^e) ; *stray* (STr^a) ; *story* (ST'R') ; *history* (oST'R') ; *Easter* (eST'r₁) ; *austere* (ouST₃'r) ; *astir* (°STr₃) ; *astray* (aSTr^a) ; *star* (STr₁) ; *starry* (STrR') ; *stir*, *store* (ST'r₃) ; *stare*, *stair* (ST₁'r) ; *sitter*, *setter* (S't₂T'r) ; *satire* (s'Tr) ; *satyr* (s'T₂'r) ; *oyster* (ouSTr) ; *estuary* (°ST-R') ; *Austria* (auSTrea) ; *hysteria* (H'STrea).

141. Without any further extension of the principles enunciated, the ordinary expert writer has now the means of expressing speech at its highest usual speed without any curtailments or contractions that would prevent his notes from being read by any other writer of this system. But a speed far in excess of the average rate may be attained, if circumstances require it, by simply extending the following rules in the direction therein indicated. For ordinary practice, up to 180 words per minute, the student should content himself with the commonest abbreviating devices, and for more moderate speeds he may omit them all and make a free use of the universal vowel. The student, by a few months' practice, may write, with comparative deliberation, 140 or 150 words per minute ; his notes, if he has followed the instructions carefully, being so clear that they can be handed page by page to a transcriber to be reproduced in longhand. If he will only practice and persevere this grand result will assuredly reward his labours.

142. The numerous advantages afforded by this system of "Visible Speech" over all other methods of short writing, consists not more in the paucity of the marks required for a given amount of expression than in the greater facility with which these marks are made. The great majority of the lines run in the directions most natural to the right hand. If all men used both hands equally well, it might be *desirable* to modify our principle of construction, and if we were all left-handed, it would be *necessary* to do so in order to obtain the best results.

143. In many systems, brevity is attempted to be obtained by curtailing long words without regard to the frequency with which they are employed, the words occurring every moment being frequently neglected. Words like *were, from, there, man, &c.*, require three and even four pen-movements, and as such words are enunciated by a speaker in less than half the time required by the most dexterous hand to make their equivalent marks, the writer must either skip passages or be left hopelessly in the rear.

144. Attention to the all important principle of the frequency of recurrence of consonants has secured the maximum of facility, and attention to the frequency of the recurrence of words, the maximum of effort, for "Compendious Shorthand." The following comparative table shewing the analysis of "The Lord's Prayer," written fully as it appears in the preface (p. xviii.) of this work, and in the systems of eleven other inventors who, with one or two exceptions, leave all the vowels unexpressed, illustrates the latter claim.

Date.	System.	Inflections of pen required.	Lifts of pen required.	Total No. of efforts.	Effective result in words per minute.
1883	Compendious Shorthand	67	34	101	198
1882	Common Shorthand	119	50	169	118
1880	Phonography.....	76	36	112	180
1833	Moat	66	44	110	181
1816	Oxley	115	55	170	118
1806	Nicholson	111	56	167	120
1802	Roe.....	169	54	220	90
1800	Richardson	108	56	164	123
1795	Rees	182	66	248	80
1789	Mavor.....	133	60	193	103
1786	Blanchard	168	93	261	72
1758	Angell.....	147	65	212	93

RULES FOR WRITING "COMPENDIOUS SHORTHAND."

The following rules, being logical deductions from the facts previously displayed, are placed last, which is their natural, though not their usual, order.

I. Write by sound, each syllable uttered being represented by its proper sign in the order of utterance, but do not express Q by Kw, x by Ks, nor C (hard) by K, if the graphic signs *q*, *x*, and *c* can be conveniently employed.

II. Certain short words given as models, and words in analogy with them, are expressed by minor or auxiliary characters, and these characters are preferable for commencing outlines in certain cases (*see* par. 102); but, as a general rule, the first part of all words, and the whole word in the majority of common monosyllables, will be expressed by a primary stroke.

III. The auxiliary is preferable when it implies an initial vowel without writing; ex., *Altho*, *argue that*, *extraordinary*.

IV. The auxiliary forms of *s* and its combinations are, in certain cases, preferable with either curved or straight stems. The ring on the 'm side of a straight stem expresses *sm* if small, and *ms* if large, whether initial or final; and *sn* and *ns* respectively are represented by two similar rings turned against the sun (or on the 'l side). The lengthened SM (employed only in the case of a few common words, e.g., *same*, *some* as a compendium), and the auxiliary *sm*, when initial, are generally coalescents, but as a final *sm* may be either a coalescent or a compendium. It is a coalescent in *prism*, and a compendium in *lonesome*. The auxiliary *sn* follows precisely the same rules as *sm*.

V. An initial *S* not followed by *x* nor a coalescent must if followed by an upper vowel have its proper auxiliary form (a loop to a straight, and a ring to a curved, stem), but *S* in any other situation may be expressed either by its primary or an auxiliary, as may be most convenient. The primary *must be used* to express an initial *C*, followed by *e* or *i*, and it *may be used* at any time for the sibilant *C* and also for the sound *Z*. The primary should generally be used for *S* preceded by a

long or double vowel or followed by an obscure vowel, and *r*, *l*, *t*, *d*, or *n*, with one of which it may then be coalesced. On page 18, the outline of *centuries* shows initial *C* followed by *e* and final *s* preceded by a double vowel, the primary being required in both cases. In *subordination*, the ring is used as the initial because a curve follows, and a loop is used in *as much* because a straight stem follows. The ring is generally most convenient when *S* is medial, as in *musical* and *there has been*.

VI. The mnemonic formulæ for differing outlines (par. 135) will be sufficiently definite for ordinary practice, but, for the reporter, a few precise rules may be added governing the application of the principle of variety to consonant outlines. From the formula *like shuns like*, it will be inferred that junctions between the flat slopes and the horizontal straight stems are to be avoided as far as possible, auxiliary followers being preferable. The sibilant primaries, when written downwards, may, however, be conveniently attached to horizontal stems (e.g., *both*, par. 92), as they are then "unlike." The "like" signs produce obtuse angles, and the "unlike" signs acute or right angles, the former giving unfavourable, and the latter favourable, junctions.

VII. From the formula "a first rate leader will seek an unlike follower or an auxiliary," is to be inferred that *N*, *T*, *D* and *ST* join easily with the horizontal and sibilant primaries; but, when *K*, *G*, *F*, *V*, *CH*, and *J* require to be attached, it is best done by auxiliary forms. With downward coalescents of *r* the initial hooks for '*p*' ('*b*') '*m*' are extremely facile, and they should then be preferred to the stems *P*, *B*, *M*; but with the downward coalescents of the opposite kind, these hooks should not be attached, and the primaries will, of course, be used. Similar considerations govern the selection of the loops on the *l* side. At the end of any curve the large hook always represents '*f*' ('*v*'), and the small hook '*l*', the '*p*' ('*b*') '*m*' hooks, only being finally applied to straight lines. The large hook should seldom be attached to a simple *R* or *L*, at either end. The '*l*' hook is a convenient initial, before all curves implying *l* except upward ones, but it cannot be applied to the opposite curves. As a final it is always convenient, because it follows the direction of

the curve. The 'l, when initial, and followed by a curve of the opposite character, should therefore not be expressed by the hook. The corresponding loops, under similar circumstances, cannot be used. (*See* page 44.)

VIII. The inference from, "a second rate leader must have a good follower or be auxiliary," is, that primaries of the guttural and compound consonant groups more readily become initial auxiliaries than the other primaries. *K* and *G* should generally be auxiliaries, unless they combine with a preceding *r*, *l*, *t*, or *d*, or unless followed by 'n or 'ng. A further inference is, that to this slope an auxiliary should seldom be attached. Not only on account of suggestiveness, therefore, but for the sake of facility, the graphic signs for *c*, *q*, and 'x, are preferred, as in *casuist*, *question*, *sex*, &c. In the middle of outlines, and at any time when more convenient, these consonants may, however, be represented by *k*, *kw*, or *ks*.

IX. The other mnemonic applies to the contracted forms allowable in familiar words. "If you doubt, spell it out," suggests that no foreign words, technical terms, proper names, new words, or words without or with but little context, should, in ordinary practice, be abbreviated. "What comes again may be run in," gives a general intimation of when it is proper to contract a word. *Consideration* and *intersection* were given as examples (*see* par. 136).

UNFAMILIAR WORDS—(Fully Expressed.)

X. All words may be regarded as being either *familiar* or *unfamiliar*, the former being the words known by previous examples, and the latter those with whose Shorthand outlines the student is not yet acquainted. Many unfamiliar words will, in the course of practice, become familiar, but, until they have been several times met with, they should not be treated familiarly (*i.e.*, abbreviated). The unfamiliar words must be fully expressed according to the following rules:—

I. All words other than those referred to in Rule II. must commence with a primary sign if the leading element is a consonant.

2. If the leading consonant is followed immediately in the same syllable by *r* it must be bent to the *right* of a central point, thus : \rangle ; and, if immediately followed by *l*, it must be bent to the left of the centre, thus : \langle . If *N* preceded by a vowel commences, and *tr* (*dr*) or *tl* (*dl*) follows, the stem will be thickened as well as bent, the thickening being considered as taking place before the bending in order that the *t* (or *d*) may be read before the *r* or *l* thus : *enter*=°NTr ; *endless*=°NDl'S. If the leading consonant is followed by *w*, that letter will be made the primary (*see* par. 102). *SPH* will be treated as the primary *SP* and *SQ* as *SK*. If the succeeding consonant of a word belong to another syllable the two may be coalesced or not, as convenient, the object being to ensure that the first important medial vowel shall be read at the end of the first primary stroke. R and L themselves are coalesced by simple junction, as in *girls* (p. 18).

3. If other consonants follow in the same word they must be attached without lifting the pen, except as provided by the rules, all medial vowels not indicated at a junction or not included in a compendium being expressed by the universal vowel-sign. Thus the abbreviation *to compete* (p. 18) might have been fully expressed by *to*=T^a and *compete*=c'MP'T.

[The universal vowel is represented in stenotypy by a dot, and a more definite or implied vowel by an apostrophe.]

4. Every significant vowel not necessarily implied in a word must be either expressed by a vowel sign, or in some manner be clearly indicated. Initial and final vowels are indicated by the line, as in *am*, *up*, *any*, *into*, *over*, *every*, *altho*, *thy*, *to*, &c. ; by vowel marks in *each*, *either*, *tide*, &c. ; and by vowels implied in the consonant sign, as in *argue*, *altho*, &c. In monosyllables, and often in dissyllables, a final vowel may be indicated by the line, but in longer words they will have to be expressed or otherwise indicated.

5. When two sounded vowels precede or terminate a word, one may be expressed by a detached vowel-mark, if both cannot be conveniently indicated otherwise. Detached vowel-marks may at any time be added to a consonant outline.

XI. When medial vowels are followed by *n* or *ng*, the combinations may be implied, without writing, by the secant

position. Examples :—*Turn, done, find, when*, which are in the *an* position (see paragraph 116), *being, strength, language*, which are in the *eng* position, and *among, long, strong*, which are in the *ung* position.

XII. When unruled paper is used the vertical lines are readily enough struck across the stem ; more readily, in fact, than a detached vowel can be inserted in other systems. Only the first or second stem in a long outline can, as a rule, be treated on the secant principle, but the line can be struck through any stem for the purpose ; or, in common words, a hiatus can be formed, after which the next primary stem will stand in the position of a first primary. Examples :—*Understand* (°ND-ST^{and}) and *notwithstanding* (N't₃-ST^{and}).

XIII. Final and initial vowels may be converted into medial vowels by phrasing (examples :—*on equal terms, argue that*) ; they are then, like the other medial vowels, indicated at the junctions. If more convenient, two medial vowels, or a whole syllable, may be indicated by hiatus, as in *violin, to compete*. The universal vowel may also be used in *compete* (K·MP'T or K·MPt).

XIV. When necessary to indicate definitely the character of the first medial vowel, the leading elements of the outline must be placed in position. Thus, *subordination* commences below the line to indicate that the lower vowel *u* comes between *s* and *b* ; the position of *centuries* shows the first vowel to be *e* or *i*, and not any other vowel. If the first vowel is otherwise expressed the second may be definitely indicated by position ; but the majority of fully expressed words do not require their medial vowels to be definitely indicated ; if the situation of the vowels be marked they are generally perfectly legible. They may therefore be usually commenced in the most convenient position, that is on the general line of writing.

FAMILIAR WORDS.

XV. The sixty commonest words and the others given in the instructions and exercises are models on which all other common words may be formed when their Shorthand outlines have become familiar. Where not short enough in their full form to

be written at least as rapidly as they can be uttered, they may be shortened by various abbreviating devices, which must be employed in the following order of preference :—(1) compendiums ; (2) position ; (3) hiatus ; (4) curtailment ; (5) elision ; (6) omission. Devices 1, 2, and 3 may be applied to all familiar words, but 4, 5, and 6 should only be used for the commonest of the familiar words.

1. COMPENDIUMS may consist either of whole words, like *not*, *but*, *turn*; syllables like *for* in *forward*, or phrases like *fromt*, *int* (*from the*, *in the*, p. 18). The last kind are termed stenograms. Compendiums must not be employed which would clash with coalescents, the distinction between them being that the latter are true consonant digraphs, trigraphs, &c., admitting of no vowel in the combination, while the compendium always includes a brief vowel in combination with consonants. Examples :—*Starting*, *fromt*, *premisses*, *that*. Here the coalescents are *rt* and *pr*; the syllable-compendiums, *mis* and *ses*; the word-compendium, *that*; and the phrase-compendium or stenogram, *fromt*. *Apt* (ePt¹) is a coalescent which expresses 'pt, and *put* (Pt³) a compendium expressing *p't*.

2. THE POSITION of a sign with regard to ruled or imaginary lines is made to imply certain sound elements without writing them. In the first position a vowel of the upper series, and in the third position a vowel of the lower series, is implied : Examples *same*, *something*. The second position is the general line of writing and signifies usually a middle vowel, but frequently also any vowel whatever.

3. THE HIATUS implies the omission of at least two sound elements, either a vowel and consonant (*i.e.* a syllable) or two sounded vowels. The outline resulting is often more convenient as well as briefer than the fuller form and quite as legible.—Examples *violin*, *casuist*, *understand* (par 92.)

4. CURTAILMENT is effected by placing the end of the outline curtailed, against a line, as in *darkness*, or by finishing the outline with the sign for *q* as in *agriculture*, *application*, *frequent*, &c. (par. 114.)

5. ELISION is effected by placing the beginning of an outline against a line to indicate that the word is beheaded ; *however* and *honour* (par 92) are examples.

6. THE OMISSION of elements without indication may occasionally be practised where the remaining part of the word is sufficiently obvious. *Forward, teaching, reasoning, beginning, strength, having*, are examples. Short words, unless extremely common, should not be abbreviated by this device, but it is generally safe with long words. Example *beginning*.

XVI. The reporter may greatly extend the principle of abbreviation by isolated position, but for all ordinary practice the system is quite brief enough without any of these devices. The sign (—), for example, which in the 1st position signifies *be* and *to be* and in the 3rd position *boast* might have had attributed as addenda *s, ch, and m*, in both positions. B¹ would then mean *base, beach, beam* and *best*, as well as *be* and *to be* and B³ would mean *bow* or *to bow, boys, botch*, and *boon* as well as *boast*. So with the rest of the primaries.

XVII. A method of abbreviation commonly practised in writing longhand may be imitated in "Compendious Shorthand." Archbishop, for example, may be expressed by 'R crossed by the primary B ; D.D. by D'c crossed by Vt ; M.A. by M crossed by 'rt and many others.

XVIII. The repetition of certain phrases or forms of expression common in scriptural and other quotations may be indicated in the following manner. On the second recurrence of the first word of a phrase leave blank the rest of the line on which you are writing and place the last word of each group under the word first written in the recurrent phrase.

Example :—Whatsoever things are true

honest,

just,

pure,

lovely,

of good report.

If there be any virtue——

praise think on these things——

XIX. Numbers are, as a rule, most conveniently expressed in the ordinary way up to three places of figures, because, although they are less briefly written, they are better suggested in reading than by Shorthand characters. One, two, four, six, seven, ten, forty, sixty, seventy, hundred, are, however, so brief

and distinctive in "Compendious Shorthand" that they may with advantage always be expressed by their Shorthand signs, viz., W^{an} ; T ; F₃r ; S'x S'V^{an} ; T^{an} ; Fr^a ; S'xt S'V^{ant} ; and °ND₃rd. Thousands may generally be expressed by the primary TH attached to a figure, or thus, commencing in the first position : th'S^{and}. *Millions* also joins very conveniently to figures, thus : 7 M'l'ns.

XX. Among the abbreviating devices may be reckoned the formation of phrases, the principal object of which is the saving of the lifts of the hand between one outline and another, which may be termed ineffective hand-movements. The words joined should be common, form a natural group, or rhythmical impulse in speech, and be quite convenient for the hand. If phrases cause any hesitancy in writing or difficulty in reading-off, they should be eschewed, unless their frequency of recurrence makes it worth while to devote special practice to them. The habit of phrasing should be gradually developed in the course of practice, but the phrases contained in the models, and such as are in close analogy with them, should be constantly employed. To distinguish short phrases from single words they should begin or end with some distinctive character that will show them to be phrases. *The, and, of, I, you, we, all, a, in the, and the, on the, it, that, and there* at the beginning, and *and, of, for, that, there, out, &c.*, at the end of phrases are very characteristic. *Fr*, in phrasing, reads *for*, not *from*, the word signs, except in joined logograms, losing their special character when joined in phrases. A thickened final tick in any diagonal direction indicates *and*. The phrase *of the* is never to be joined initially. The reporter may, however, omit it, and show its omission by hiatus. *Ex casuist, to compete, &c.*, on p. 18.

XXI. The auxiliary verbs generally form good phrases, the hook for 'b being then used to indicate *be*, and that for 'v to indicate *have*. In these phrases, *had* and *to* may frequently be obtained by thickening and *been* and *done*, (with or without something implied in a preceding hiatus,) by the secant position. Examples : Will have done (Wl'vD^{an}) ; will have been done (Wlv-Dⁿ) ; may have been done (Mv-Dⁿ) ; must have been (Mt³-Bⁿ) ; may have had (MVd) ; might have been done

(Mt^lv-Dⁿ); can't have been done (K^{ant}tV-Dⁿ); could not have been done (K'dN'tv-Dⁿ). The student who has become expert in reading his notes may employ initial-hook auxiliaries to represent *p*, *b*, *m*, *l*, *f*, and *v*, as well as those consonants with a vowel preceding, care being taken to mark with a caret any such outline (as provided for by the next rule) wherever it could lead to a clash. Possibly (p. 18) shows an example of this kind of extension.

XXII. The auxiliary character for 'x when prefixed to curves, may be shortened into the crossing loop, this loop implying initial *s'* being applied to straight stems only, but 'xt requires a portion of the turn over to be in the downward direction in order that it may be thickened. The auxiliaries for *g* and *c* (hard) always imply a vowel after them. By an extension similar to that prescribed in the last rule, an initial vowel may be implied before these and any other auxiliaries commencing an outline, but where two words exist with only the difference of the initial vowel between them, either a detached mark, in the form of a caret, must be used to show the absence of the initial vowel in one, or the initial vowel must be shown in the other by a detached sign. Thus, *across* if written cRs without indication of the initial vowel would require the subsequent insertion of the vowel tick. *Lone* might be distinguished from *alone* and *maze* from *amaze*, by using the caret to the less common word of each pair. This caret, which is formed by two ticks in the easiest directions, joined at an acute angle, may be employed to cancel any outline which may have been wrongly written. It will then be placed across the outline and may be of any convenient size. As the reporter will never want the universal vowel he may make use of the dot for *c* (hard) medially as well as initially and finally.

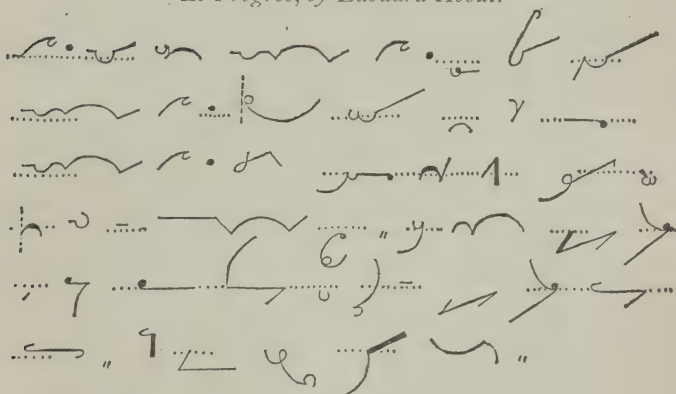
XXIII. The thickening principle may be extended in phrasing to add *it* as well as *the*, and when it can be done distinctly and conveniently, the auxiliaries and some others of the minor characters may be thickened to add *t* or *d*. In a few very common words *th* is treated as *t*. Examples, *these*, *those*, where *T* represents *th*, and *truth*, where *th* is represented by *t* added to *Tr* by thickening.

XXIV. All elements being written in the order in which they

occur in speech, the outlines are read off in the same order, but when one element is implied by thickening, and another at the same point by curving or by position, the element implied by thickening is always read last. This rule does not apply to *nt* or *nd*, which are governed by 2. Rule X. See also par 73.

FRENCH SPECIMEN. I.

Le Progrès, by Edouard About.



ANALYSIS I.

C'lui q(ui) aPl^{an}Té L'rBr aBien M'rTé C'lui q(ui) L³c'P
Celui qui a planté l'arbre a bien mérité; celui qui le coupe
 He who plants a tree is very deserving; he who cuts it

'l'D'v'S 'NPl^{an}SH aBien M'rTé C'lui q(ui) 's'M'Bl
et le divise en planches a bien mérité; celui qui assemble
 and divides it into planks is very deserving; he who joins

L'Pl^{an}SH Pr³ Fr'n Ban(c)k aBien M'rTé C'lui q(ui)
les planches pour faire un banc a bien mérité; celui qui
 the planks to form a bench is very deserving; he who

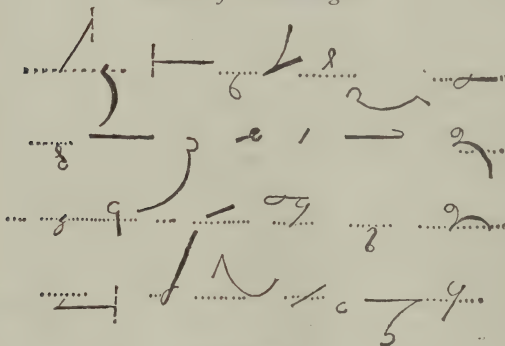
s's'SY' S'r³L'Banc Pr^{and}'N 'NF^{ant} S'r³s'SH^{an}ou (et)
s'assied sur le banc, prend un enfant sur ses genoux, et
 seats himself on the bench and takes an infant on his knees,

L'ui aPr^{and} aL'r aM'Y' M'r'Té q(ue)T'l₃'s'Tr'. L'
lui apprend à lire, a mieux mérité que tous les autres. Les
 to teach him to read, is more deserving than all the others. The
 Tr³(ois) Pr'M'r oNt auSH³Té Klq'SH(ose) au c¹P¹Tl c¹M^{an}
trois premiers ont ajouté quelque chose au capital commun
 first three have added something to the common capital

D'lM^{an}Té L³ D^{an}r' a auSH³Té Klq'SH(ose) a L'M^{an}Té
de l'humanité, le dernier a ajouté quelque chose à l'humanité
 of mankind, the latter has added something to humanity
 'lM'm 'l a F't oN'M³ Pl³sKl'R' S₂'tDr M'lY'r
elle-même. Il a fait un homme plus éclairé, c'est-à-dire meilleur.
 itself. He has made a man more enlightened, that is better.

GERMAN SPECIMEN. 2.

Motto of Gabelsberger.



ANALYSIS 2.

'Da_Δ(und)W'rd₃ eM Fl₃'g D'r Z't 'n's R³Ml'ch(e) s'B^{and}¹
Idee und Wort im Flug' der Zeit ans Räumliche zu binden
 Idea and Word flight time to bind
 To bind words and ideas in their flight through space

s'cht₃(I) M't¹ 'r^{an}STR₃ TH¹'t'kit (ein) M't¹l s'rGr^{and}¹
Sucht Ich mit ernster Thätigkeit ein Mittel zu ergründen
 Sought I earnest one to ground
 I sought with earnest industry to establish a means;

(Und) w's (I)F^{and} (that) G'bI'N 'm Nt₃sn suFrBr't¹
Und was Ich fand, das gab Ich hin um Nutzen zu verbreiten
 And what I found, that gave I to (broaden)
 And what I found I gave away to make its use the wider.

auMo₃' ST'ts (ein)Gl'ch'r S^{an} (auch) M^{ap}SHI'r L'T^{an}
O möge stets ein gleicher Sinn auch meine Schüler leiten.
 O may one like sentiment mine scholars lead.
 O may a similar sentiment also guide my pupils.

In both French and German a large proportion of the words have similar outlines with their English synonyms. By cutting off the infinitive characteristic *en* of the German verb it has frequently exactly the English form. Ex. bind-*en*.

The English forms resemble the German ones in all the following words :—

- Line 1. Idea and Word-flight-time-to bind.
 „ 2. Sought I-earnest-one-to ground.
 „ 3. And what I found, that gave I-to (broaden).
 „ 4. O may one like sentiment-mine scholars lead.

CONCLUSION.

The rules for abbreviation and for writing French and German will be further developed in a separate work, intended for the advanced student, who may either desire to reduce “Compendious Shorthand” to a still briefer means of reproducing speech, or to apply it in either acquiring writing or teaching foreign languages. They are here merely hinted at, for the purpose of showing their adaptability for the purpose. Some of the more obvious of the abbreviating devices will, of course, be gladly brought into use by the reporter, for whom a system can scarcely be too brief, if it can be written readily and read easily. For this reason, in the concluding plate a contracted form of the “Fair Fiddlers” is illustrated, in which, with but a small sacrifice of legibility, a reduction of upwards of ten per cent. in the already small number of pen-movements has been effected, while a still further reduction of five per cent. is easily

possible. The expression, even with these reductions, remains far fuller than in other brief reporting systems, most of the elements being distinctly implied, even where not written. Thus, "starting," in its contracted form, expresses in a single stroke, *STrt*, with an upper vowel in it, the absence of the tail of the word being also indicated; "subordination" has *SBrđ*, with a lower vowel, a syllable indicated by hiatus and the termination *ation*; "played" is represented by *plđ*, with an upper vowel; "violinist" shows *vl*, with vowel, *n*, and the full termination *'ST* added; "violin" shows *vl* and *'n*; and "teaching" exhibits *T'SH'n*; "reasoning" is expressed by *R*, with an upper vowel, an omitted syllable (*so*) indicated by hiatus, and the termination *n'n*; the stenotypic representation being *R'[s]n'n*. Thus, by the use of only three out of the six abbreviating devices, the manual effort required to write the passage has been reduced to 88 marks for every 100 syllables.

The same passage in phonography, with far fewer elements of sound expressed, requires 132 marks per hundred syllables—an excess of 44 marks, or exactly one-half as many more. Therefore, with the self-same effort which a phonographer requires to produce 120 words per minute, the writer of this system will be producing 180 per minute; or, to vary the comparison, the expert writer of "Compendious Shorthand" can take down 120 words per minute with the deliberateness that an expert phonographer would write at the speed of 80 words per minute. Nearly all the other systems being slower than phonography, the comparison with these becomes still more striking. In many of them, the very same effort would be required to produce 54 words per minute which would give 120 in "Compendious Shorthand," and the latter would even then be more fully expressed, and therefore more legible. If an equal number of elements were expressed in the older systems, scarcely one-third the effect in words per minute could be produced with the same effort.

The passage in French (on page 83) requires 211 pen-movements to express it fully in the newest and most improved form of Phonography as applied to French (French Phonography, by Mr. T. A. Reed), which has just been issued by Mr. Pitman. In "Compendious Shorthand" its elements are more

FAIR FIDDLERS.

St(a)rt(ing) FROM THE pr(e)mis(e)s that c(e)ntur(ie)s OF s(u)b(o)rd(i)n(a)shn

HAVE l(e)ft the g(e)ntl(e)r s(e)x t(oo) g(e)ntl to (com)p(et) ON EQUAL TERMS

WITH man a m(u)s(i)kal c(a)s(ui)st might p(o)sibl(y) arg(u) th'e)t

w(o)man HAVING playd skand f(i)dl FROM THE kr(e)ashn

CAN NEVER m(a)ck a f(i)rst-cl(a)s v(io)l(ini)st. SUCH r(ea)s(o)n(n)

at al(e)vents WOULD BE QUITE AS l(o)j(i)kal AS MUCH of that

WHICH HAS b(e)n p(ut)frw(a)rd IN OPPOSITION TO v(io)l(i)n t(ea)ch(i)n

to g(i)rls AND alth(o) OF LATE th(er) h(a)s b(e)n

SOMETHING OF A turn IN THE tide OF

copiously expressed with but little over half, or 128 pen-movements. But the comparison becomes still more remarkable when the stenographic signs used in the two systems are contrasted in respect of facility of production. In Phonography, out of 124 stem or stroke signs, 55 are either perpendicular or made sloping from left to right, both these directions being below the average of facility. Of the remaining marks, those for vowels are detached, and therefore of less than average facility. These, with disadvantageous hooks and loops, amount to 45 out of 87 auxiliary marks. Reckoning all the marks below the average of facility as unfavourable, and those above the average as favourable, the valuation of the passage in French Phonography stands thus :—Total marks, 211 ; favourable, 111 ; unfavourable, 100 ; proportion of unfavourable marks 48 per cent. In “*Compendious Shorthand*,” it will be seen that only five marks are in the unfavourable diagonal direction, and only five are perpendicular. All the vowels are attached, and of the auxiliary marks, which only number 40 against 87, all, except five, are of more than average facility. Out of the total of 128 marks required, 86 are primaries, of which 79, or 91 per cent., are of the favourable character. It is only justice to Mr. Reed to add that his method of writing the French vowels is much less cumbrous than any previously published method known to phonographers in this country.

The French passage consists of 88 words, or 130 syllables, one syllable more than the “*Fair Fiddlers*” specimen. It is expressed with one inflection more. Hence, whether writing English or French, the student of *Compendious Shorthand* requires, for the very full expression of the elements of any speech, not quite one pen-stroke per syllable.

German requires, relatively, a rather greater effort for Englishmen, because of the greater proportion of consonants contained in German words. A German, knowing his language well, could, however, write “*Compendious Shorthand*” with less than one effort per syllable, since, in a large proportion of German words, which are frequently very long, the contractions by hiatus and curtailment could be very effectively employed. The specimen on page 84 consists of 60 syllables ; it is expressed with 60 movements of the pen. It forms the motto of

Gabelsberger, the inventor of the most popular of the German systems. By Gabelsberger's method 144 pen-movements are required to express the passage, *i.e.*, $2\frac{1}{3}$ efforts must be made in the most popular of the German systems to one in "Compendious Shorthand."

Where the student requires frequently to write French, it is necessary to have signs for the peculiar vowels of the French, which are principally *u*, *ui*, *oi*, and the nasal vowels, *in*, *an*, or *en*, *un*, and *on*. The minor characters for *wh*, *w*, and *i* may respectively represent the three first, and the nasal vowels are obtained without writing them by putting a double or wavy curve into the consonant to which the nasal is attached. The first nasal of the five is written in the first position; the second, third, and fourth across the line (in the secant position); and the other in the third position. The order of the simple vowels is the same as in the preceding instructions, *i* (sounded ee) being at the upper end of the scale, and *ou* (sounded oo) at the bottom. A vast number of the nasal vowels in common words may be indicated by writing the primary across the line without waving. The liquid French *ll* is obtained from our Y by waving, and the cognate sound *gli* (Italian), and *ll* (Spanish and Welsh), may be represented by the same sign. The French liquid *gn* when not followed by a sounded vowel may be represented by the N (written either upwards or downwards), but with a sounded vowel it will be best indicated by NY. The Italian *gn* and Spanish *ñ* follow the same rule. The termination *nge* whether in English or a foreign language may be represented by the auxiliary *j* attached to N.

If German or other language in which guttural sounds abound requires to be frequently written, a sign for the guttural may be obtained from the H, which never need be used with its English quality of an aspirate, except at the beginning of a small number of words. The four signs placed last among the minor characters in the Alphabetic Chart, in addition to those named above, represent various special vowel sounds, several of which resemble in French and German.

If the student frequently requires to take notes on paper without ruled lines, the waved forms may be made very useful in a large class of words to indicate vowels without writing

them, and without the line indicators recommended in the earlier stages. As no English word need ever be written in "Compendious Shorthand" with one of these wavy outlines, a vowel preceding and a vowel following a consonant may be thus indicated, the upper part of the consonant being bent in the *r* direction, to enclose (as it were) the precedent vowel, and in the *l* direction to enclose the succeeding vowel.

The first outline of the German specimen, for example, which represents *idea* in English as well as *idee* in German (and also in French), though neither of the ruled lines were present, could still have the initial as well as the final vowels indicated without writing either. The upper half of the stem would be made like Nr and the lower half like Nl. No English word or phrase would be expressed by NrNl in this system. The word *hasty* expressed by 'ST' (doubly curved) might clash with *turtle* if the latter were improperly written, since the double curve would form TrTl, but if *turtle* were so expressed by a pupil he would break more than one rule in doing it. According to Rule XIV. the situation of the leading vowel in *turtle* must be indicated by bringing the end of its leading sign T to the line of writing, or, if desired, to exactly indicate the character of the leading vowel, by writing it under the line. Hence no word which did not begin and end with a vowel, and contain medially the digraph ST, could be written in the same way as "*hasty*." *Any, into, away, obey, heavy* (omitting *h*), *ado* (*adieu*), *ago, echo, easy, essay*, and many other common words might in this way be *fully expressed by a single stem sign*. This device is an extension of the characteristic principle of "Legible Shorthand."

The author thinks he has now demonstrated the justice of the claim set forth in the title-page, where it is stated that "Compendious Shorthand" is a rapid system of Visible Speech, brief enough for reproducing verbatim the fastest oratory, legible enough for business correspondence, and SO COMPENDIOUS THAT A SINGLE PEN-STROKE, AS A RULE, FULLY REPRESENTS A SYLLABLE.

SYNOPSIS OF ILLUSTRATIONS, DEFINITIONS, RULES AND EXERCISES.

**The reference numbers are to the paragraphs unless otherwise stated.*

SYNOPSIS I.—ILLUSTRATIONS.	Page
1. The alphabetic chart (frontispiece)	x
2. The vocal mechanism (Preface)	9
3. Primary characters, P, B, M	10
4. " " F, V, W	10
5. " " N, T, D	11
6. " " NG, CH, J	12
7. " " TH, S, SH	13
8. " " Y, K, G	14
9. The curved coalescents L, R, 'r, LR, RL	14
10. " " Pl, Pr, Bl, Br	14
11. " " Fr, Fl, Kr, Kl	14
12. The thickened coalescents Pt, Mt, Ft, Nt (Nd)	18
13. The "Fair Fiddlers" (very fully expressed)	29
14. The sixty commonest words	32
15. Extract from the Gospel of John	40
16. Contracted forms	47
17. The auxiliary characters	48
18. Specimen of phrasings (1)	48
19. " " (2)	50
20. Variations of "Fair Fiddlers" specimen	83
21. French specimen "Le Progrès"	84
22. German "Gabelsberger's Motto"	87
23. Fair Fiddlers, with reporting abbreviations... ..	

SYNOPSIS II.—TABLES.

1. Comparison of Compendious Shorthand with phonography and five other of the best systems, competing in the "Bazaar" test	
2. Comparison of Compendious Shorthand with phonography and ten other systems of the highest repute. Subject—The Lord's Prayer	73

- Differentiation, 123, 131-140.
 Digraphs, consonant, 28, vowel do., 43.
 Diphthongs (see Vowel indication).
 Dits and dots, 9, 42, 53, 69.
 Economy of stenographic materials and devices, vii. (Pref.), 42-44, 53, 78, 85.
 Efforts, stenographic, 4 (Table, p. 3), 14c.
 Elision, principle of, 93, 107, 113, 115.
 Ellipse (see Characters).
 Ellipsis, 109.
 Enclitics, 47, 52, 58, 69, 73, 76, 85, 125.
 Evolution of new combinations, 78, 101.
 Expression, power of, xviii. (Pref.), 5, 12, 13, 14c, 41, 44, 72, 141.
 Facility, law of, in speech, ix., xii. (Preface), 25; do. of lines, 10, 14a, 21, 23, 142; of junctions, 129, 130; of combinations, 44, 134, 135.
 Formulæ (Mnemonic), 133, 135. Rules VI. to IX.
 Frequency of recurrence of consonants, viii., xiv. (Preface), par. 1, 14, 25, 61, 100, 134, 144; of words, 2, 47, 75, 116, 125, 126, 132, 133, 143. Rule XV.
 Grammalogues (see Memory Words).
 Gutturals (see Phonetic Groups).
 Groups (phonetic) (see Phonetic Groups).
 Hiatus, principle of, 43, 52, 64, 84, 106, 113, Rule XV.
 Hooks (see Characters and Implied Vowels).
 Implied Vowels (see Vowel Indication).
 Labials (see Phonetic Groups).
 Legibility, xiv., xix. (Pref.), 41, 79, 80, 81, 83, 97, 104, 114, 132, 141.
 Lengthening (see Principles).
 Limit of power of hand and tongue, 3, 13.
 Line of writing, 42, 43, 50, 72, 115, 124.
 Line vowel indication (see Vowel Indication).
 Logograms (see Memory Signs).
 Maximum speed of hand and tongue (see Speed).
 Memory signs or logograms and grammalogues or memory words, 40, 52, 71, 74, 91, 94, 97, 113, 116.
 Mental reading, 110.
 Method of study, 6, 7, 15, 44, 45, 64.
 Monosyllabic outlines (see Units).
 Natural standards of comparison or mnemonics (see Standards).
 Omission of elements, 42, 77, 106, 107, 113, Rule XV.
 Optional outlines (see Differentiation).
 Order of reading off, Rule XXIV., 73.
 Outlines, wavy, pages 89, 90.
 Palatals (see Phonetic Groups).
 Pen-movements, xvi. (Pref.), 4, 125, 143; pages 88, 89.
 Phonetic basis of system, vii. (Pref.), 16-27 Rule I.
 Phonetic and philological grouping, xv. (Pref.)
 Phonetic groups, the, 16-25; labials, 16, 17; tooth-lip letters or denti-labials, 18, 19; palatals, 20, 21; compound palatals, 22, 83,

- 104, 111; sibilants, 23, 60, 61, 69, 107, 111, 112; gutturals, 24, 25, 59, 83, 134, 135; coascescents (curve), 26-29, 31, 71, 73, 113, 122, Rules IV., XV., XXIV.; (thick), 30, 31, 73, 113.
- Phraseography (see Index).
- Position, 42, 55, 56, 70-74, 91, 106, 116, 122, 127.
- Power of expression, great, of the system, 3, 44.
- Prime, primary (see Characters).
- Principles, abbreviating, 5, 52, 56, 97, 104, 106, 107, 113; curving, 5, 73, 74, 75, 113; fundamental, 1, 2, 3; lengthening, Ex. XVII., 32, 33; thickening, 30, 31, 73, 113; curtailment, Rule XV., 4, pars. 76, 77, 107, 114; elision, Rule XV., 5, pars. 92, 93, 107, 113; hiatus, Rule XV., 3, pars. 84, 92, 104, 106, 113; omission, Rule XV. 6, pars. 42, 76, 77, 106, 113.
- Reading at a glance, 2, 35, 79, 81, 83, 114, 125, Exercise VII.
- Rules (see Synopsis V.)
- Secant, 42, 55, 56, 73, 106.
- Sibilants (see Phonetic Groups).
- Simplicity, xv. (Pref.), 6.
- Speed, 3, 4, 13, 14a, 77, 141, 144.
- Standards of comparison or mnemonics x., xii. (Pref.), 8, 10, 19, 20, 56, 68, 128, 133.
- Stenograms, 57, 125.
- Stenotypy, 11, 117, 118, 119, 120, 126.
- Stroke, the first, 102, 133, Rule II.
- Suggestiveness in signs, 1, 8.
- Syllabification, 100, 102, 103.
- Triads, 14.
- Trines, 51.
- Turn by the left for l hook (see Standards), 10, 128.
- Uniformity of writing "Compendious Shorthand," xix., 132.
- Units, graphic, Ex. VII., 2, 35, page 47; oratorical, 3.
- Values for recurrence, vii., ix., xiv. (Pref.), 1, 14, 25, 61, 75, 144.
- Values for direction, xiv. (Pref.), 14, 16-21.
- Vocal mechanism, x., xii. (Pref.)
- Vowel indication, scheme of copious, 8, 36, 38, 43, 48, 76, 77, 79, 115, 123, 137, 138; do., connective, 84, 85; do., detached, 9, 36, 37, 86, 123; do., neutral or universal, 9, 76, 77, 81, 123.
- Vowel indicator, the line, 42, 50, 115, 123, 124.
- Word forming, 78, 101, 106.
- Words, the four classes of, 46.
- Words, the sixty commonest, 2, 69, 47, 75, 83, 125.
- Words, the 300 common, xvi., 47.
- Words, model, 101.

SYNOPSIS V.—THE RULES.

- I. Write by sound.
- II. The first stroke generally a primary.
- III. Auxiliary preferable when initial vowel is to be implied.
- IV. Auxiliary forms of s and its combinations.

- V. Initial C to have primary when sibilant.
 - VI. "Like shuns like" in primary signs.
 - VII. The primaries K, G, F, V, CH, J, when changed to auxiliaries.
 - VIII. C (hard), *q* and *x* generally preferable to K, Kw, and Ks.
 - IX. "If you doubt, spell it out."
 - X. Unfamiliar words to be fully expressed.
 - XI. The secant position.
 - XII. The secant position on unruled paper.
 - XIII. Phrasing to imply vowels.
 - XIV. Exact indication of medial vowels.
 - XV. Six principles of contraction for familiar words.
 - XVI. Extension of contracting devices by reporters.
 - XVII. Common type abbreviations—how expressed.
 - XVIII. Repetition of phrases—how expressed.
 - XIX. Numbers—how expressed.
 - XX. Phrasing, an abbreviating device.
 - XXI. Auxiliary verb contractions.
 - XXII. Extension of employment of initial auxiliaries.
 - XXIII. Adding *it* as well as *the* in phrases by thickening.
 - XXIV. Signs written in the order in which sounds are uttered ; order of reading off:
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APPENDIX.



A LITTLE book has appeared while the last paragraphs of this work were passing through the press which fulfils the anticipation stated in the preface (written months ago) that a certain "ill-discoverer" would honour me with his opposition. In the last half-dozen paragraphs of Mr. Anderson's "Catechism of Shorthand," the anticipated stab at "Compendious Shorthand" is dealt, but it is of the feeblest kind, and derives the whole of what little force it possesses from a gross misstatement. The writer of this catechism pretends to think that P, B, M, *man*, and *something* are expressed by the same mark, and that the sign for *as much* only differs from that for *something* by a loop. There is not one of the author's pupils (and their ages range from under ten to over seventy) that will not have a feeling of pity for the limited character of our "ill-discoverer's" powers of perception, since the distinctions which the latter is unable to grasp are by them perfectly recognised in their earliest lessons. The same blindness characterises nearly every page of this catechism, from the first question, where a slipshod definition is given of Shorthand which would do no credit to any boy who had passed the sixth standard of the Educational Code, to those in which Phonography and other systems are caricatured. Throughout the book every statement which is accurate is a mere truism, and whatever in it is not commonplace is not true.

INDEX.

- A, an upper vowel, pars. 8, 47, 48, 49, 85.
 Abbreviation, principles of, 52, 56, 97, 104, 106, 107, 113. (See also Principles, Synopsis IV.)
 Alphabet, the primary, 16-31, 111; the auxiliary, 32-35, 76, 79, 100, 111.
 Analogy, 57, 76, 89, Exercises III., XVI.
 Analysis of specimens, 42, 69-74.
 Appendix, page 96.
 Auxiliaries (see Characters, Synopsis IV.)
 B, labial consonant, 16, 17, 74; 'b, 111.
 Basis, the natural, of "Compendious Shorthand," Preface viii.-xiv.
 Best outlines (see Differentiation).
 Binaries (see Characters, Synopsis IV.)
 Brevity, the inherent, of the system, 5, 12, 13, 38, 52, 74, 93, 141; relative, xvii., xx. (Pref.), 4, 39, 75, 142, 143, 144; conclusion, pages 88, 89.
 C, sibilant primary, 8, 34, 83; c, guttural auxiliary, 8, 49, 111 Rule I, Characters, the minor, 83, 112, page 87; arbitrary characters, the minor, 12; supplementary, 32-34; auxiliary, 35, 49, 61, 76, 79, 83, 100, 111.
 Characters, traditional, 8, 17, 19, 21.
 CH, compound palatal and sibilant primary, 22, 83, 104, 134, 135; ch, auxiliary, 111.
 Chart, the alphabetic, frontispiece.
 Coalescents, 26, 27, 28, 29, 71, 73, 113, 122.
 Combination, facility of, 134, 135.
 Common words, 2, 69, 75, 83, 122.
 Comparison of systems, xviii. (Pref.), 4, 75, 144, pages 88-90.
 Compendiums, 29, 30, 49, 73, 90, 106, 111.
 Compendious Shorthand, Pref. xiv., xvi., 13, 75, 77, 102.
 Comprehensiveness of the systems, XIV. (Pref.), 44.
 Conclusion, pages 85-90.
 Consonants (minor), 79, 83, 111.
 Consonantal combinations, 61, 102, 107, Ex. XII. 131, 134.
 Contractions, 76, 77, Rules X., XV.; illegitimate, 12.
 Curtailment, 76, 77, 107, 113, 114, Rule XV.
 D, palatal primary, 20; d, 43, 111.
 Devices (see Abbreviation, Principles of), 5, 42, 113.
 Development, law of, 8.
 Differentiation, 123, 131, 132, 138, 139, 140.
 Digraphs (see Synopsis IV.)
 Diphthongs (see Vowel Indication, Synopsis IV.)
 Directions for study, 7, 15, 44, 45, 69, 83, 99.
 Directions, easy, of lines, 14a, 142, page 89.

- Dots and dits, 9, 42, 53, 69.
 E, upper vowel, 8, 43, 58.
 Economy in materials, vii. (Pref.), 42, 43, 44, 53, 78, 85.
 Efforts, stenographic and mechanical, 4, 14c.
 Elision, 93, 107, 113, 115.
 Ellipse, 60, 70, 76.
 Enclitics (see Synopsis IV.)
 Evolution of new combinations, 78, 101.
 Exercises (see Synopsis III.)
 Expression, fullness of, 4, 5, 12, 13, 14c, 41, 44, 72, 141, and Pref. xviii.
 Experiments, 21, 130.
 F, tooth-lip consonant, 18, 19, 135; 'f III.
 Facility, law of, in speech, Preface ix., xii., 14a, 21, 25; of junctions, 129, 130; of lines, 10, 142; of combinations, 44, 134, 135.
 Formulæ (mnemonic), 133, 135, Rules VI., VII., VIII., IX.
 French specimen, page 83.
 Frequency of recurrence of consonants, viii., xiv. (Pref.), 1, 14, 25, 61, 75, 100, 134, 144; frequency of recurrence of words, 2, 47, 75, 106, 125, 126, 132, 133, 143, Rule XV.
 G, guttural primary, 24; g, III.
 Gauges for use of learners, 82.
 German specimen, page 84.
 Gospel, extract from, 74, 105.
 Grammalogues and logograms, 40, 52, 54, 91, 94, 97, 113, 116.
 Groups, the six phonetic, 16-25.
 Gutturals, 24, 25, 59, 83, 134, 135.
 H, guttural minor consonant, 59, 69, 70, 83, 97, III.
 Hesitation, 57, 104, 125.
 Hiatus, the abbreviating principle of, 43, 52, 64, 84, 106, 113, Rule XV.
 Hooks, 76, III, 130, 137, 138.
 I, diphthongal vowel, 8, 43, 53, 85.
 Illustrations (see Synopsis I.)
 Implied vowels, 137, 138.
 Indication, copious, of vowels (see Vowel Indication).
 Infinitive sign "to," 74, 91.
 Inflections, 2.
 J, compound consonant, 22, 104; j, III.
 Junctions, 66, 100, 102, 103, 125, 129, 130.
 K, guttural primary, 24, 63; k, III.
 L, coalescent primary, 27, 42, 71, 83; 'l auxiliary, 42, III.
 Labials (see Phonetic Groups, Synopsis IV.).
 Legibility, xiv., xix. (Preface), 2, 13, 35, 41, 79, 80, 81, 83, 97, 104, 114, 132, 141.
 Lengthening, 32, 33 (see Principles, Synopsis IV.).
 Limit of oratorical and graphic power, 3, 13.
 Line, ruled, utility of, 42, 43, 115.
 Line "vowel" indicator (see Vowel Indication).

- Logograms (see Memory Signs, Synopsis IV.).
 Loops, 35, 83.
 M, labial primary, 16, 17; MP, 93, III, 'm, 69, III.
 Maximum speed (see Speed).
 Memory words and signs, 40, 52, 54, 71.
 Method, 6, 7, 15, 44, 45, 64.
 Mnemonics, natural and other (see Standards, Synopsis IV.).
 Mental reading, 110.
 Monosyllables, 2, 31, 35.
 Monosyllabic outlines.
 N, palatal primary, 20, 47; 'n, 42, 47, 52, 56-60, 73, 85, and III;
 NG, 22, 104, 122.
 Nasal vowel, 42.
 Natural standards of comparison (see Synopsis IV.).
 Neutral or natural vowel, 73.
 Numerical values for facility (Preface), xii., 14a.
 Numerical values for recurrence (Pref.), ix., 14b, 75.
 O, lower or labial vowel, 48, 49.
 Omission of elements, 42, 77, 106, 107, 113.
 Optional outlines (see Differentiation).
 Outlines, wavy, page 89, 90.
 Order of reading, 73. Rule XXIV.
 P, labial primary, 16; 'p, auxiliary, III.
 Palatals (see Phonetic Groups).
 Pen movements, xvi. (Preface), 4, 125, 143, pages 88 and 89.
 Phonetic Groups (see Synopsis IV.).
 Phraseography, 57, 63, 64, 95, 105, 125-127.
 Position, 55, 56, 70-74, 91, 116, 122, 127.
 Power of expression, the great, of "Compendious Shorthand," 3, 44.
 Practice (see Synopsis III.).
 Primary signs (see Characters, Synopsis IV.).
 Primes (see Characters, Synopsis IV.).
 Principles of abbreviation (see Principles, Synopsis IV.).
 Q, minor consonant, 8, 34, 83, 114.
 R, coalescent primary, 26-30; 'r, 51, 69, III, 138.
 Reading at a glance, 2, 35, 79, 81, 83, 114, 125.
 Reading taught to young children, 5.
 Résumé of principles and instructions, III-127.
 Ruled paper, &c., 67, 69, 99, page 87.
 Rules (see Synopsis V.).
 S, sibilant primary, 8, 23, 60, 61, 62, 69; s, ss, sn, &c., auxiliaries,
 107, III, 112.
 SH, sibilant primary, 68, 83, 104; ST, lengthened primary, Exer-
 cise XII., 61, 91, 101, 108; SW, lengthened primary, 32, 33,
 Exercise XII.
 Secant position, 42, 55, 56, 73, 106.
 Sibilants, 23, (see Phonetic Groups).
 Simplicity, xv. (Preface), 6.
 Special outlines, 53 (see Logograms).
 Specimens see Illustrations, Synopsis I.).

- Speed, relative, of hand and tongue, xvi., xx. (Preface), 3, 4, 13, 73, 77, 141, 144.
 Standards, natural, 8, 10, 19, 20, 68, 128 (Pref.), x. to xiii.
 Stenograms, 57, 113.
 Stenographic materials, 5, 78.
 Stenotypy, 11, 132-140.
 Stroke, the first, 133.
 Strokes, per syllable, 1, 3, 4, xvi. (Pref.).
 Suggestiveness in signs, 1, 8.
 Survival of the fittest signs, 8.
 Syllabification, 103.
 Syllables, 75, 102, 103, 133.

SYNOPSSES.

Synopsis I. Illustrations, page 91.

II. Tables, pages 91.

III. Exercises, page 91.

IV. Definitions, page 92.

V. Rules, page 94.

T, palatal primary, 20, 21, 49, 102, 135, Rule XXIII.

TH, sibilant primary, 23, 49, 102, 127, Rule XXIII.; t, 42, 111 : th, 111.

Thickening, 30, 31, 73, 113.

Ticks, 8, 9, 43, 48, 84, 85, 86.

To (infinitive sign), 74, 91.

Tracing, 65, 82.

Traditional characteristics, 8, 17, 19, 21.

Triads, 14.

Trines, 51.

Turn, right and left hooks, 10, 128.

U, lower or labial vowel, 9, 42, 123.

Unfamiliar words (see Words).

Units of sound (see Synopsis IV.)

Upstrokes, 50, 91.

V, tooth-lip consonant, 18, 36, 37, 38, 82, 83; 'v, auxiliary, 111.

Values (see Synopsis IV.)

Vocal mechanism, x. (Pref.)

Vowel, the line, indicator, 42, 50, 55, 70, 72.

Vowels, connective, 36, 37, 84, 85, 86; detached, 9, 36, 37, 42, 86, 123; neutral or universal, 9, 76, 77, 81, 123.

Vowel scheme (see Synopsis IV.)

W, classed with the tooth-lip consonants, 60, 76; w, wh, auxiliaries, 60, 70, 111.

Word-building, 78, 101, 106.

Words, classes of, 46; sixty commonest, 2, 47, 69, 75, 83, 125; model-words, 101.

ERRATA.

Inside cover, last line but one, "an" should be "on."

Frontispiece—Alphabetic Chart.—The signs SW_l, SW_r should be continuous, and not thickened lines. (See foot-note).

Preface p. xviii., line 28, for 'V' read 'V'.

Page 13—The signs for Y K G should be thin lines.

Page 29 in 4th line of plate the sign for *into* should be thickened, and that for *I* more of an oval.

Page 40—The signs for *happy* and *object* in the first line of cuts should be preceded by the dotted vertical line to indicate the initial elements.

Page 40 in line 1 for V^{an} read eV^{an}, line 2 after eV^ra insert "THr³, °Nl, TH^o, TH^e, B^e, F^a, and SH^e; line 3 for "THr³ read auTHr³.

Page 46 last line, for circle read circular.

Page 52—Exercise IX. should be Exercise XI.

cluded for months, by the peculiar circumstances under which he travelled, from writing, except at brief and rare intervals. To have been able to jot down the name of a hill or village, the width of a river, or the strength of a position in a rapid, furtive note would have been of incalculable service, and with a view to doing this he had studied Phonography and one or two longer systems. The results were more or less unsatisfactory, chiefly from the fact that often but a word or two could be written, and there being no context to help in reading off, the attempt to decipher the character not unfrequently failed. Since returning to this country he has examined the principles of Everett's and other systems, with a view to finding the means of rapidly expressing isolated words and very short phrases by outlines so full in themselves as to be legible without depending upon context. The necessary fulness of expression being in no system offered so completely as in "Compendious Shorthand," he became anxious to commence the study at the earliest possible moment.

FACT 5. On Feb. 14th last a proof copy of "Compendious Shorthand" (not quite perfect) was put into his hands, and on the 22nd (eight days later) the author examined Mr. Browne and the exercises he had written. Both the oral and written performances were so perfect as to entitle this pupil to a teacher's certificate, subject to his attaining a certain rate of speed within three months.

FACT 6. The adaptability of "Compendious Shorthand" to French, German, and other European tongues is demonstrated in the manual itself. The following further facts still more strongly testify to its *universality*.

From his knowledge of Hindustani and the other Oriental cognate tongues, Mr. Browne has declared his conviction that the basis and principles of "Compendious Shorthand" eminently fit the system to become a vehicle of communication between the Eastern and Western nations. Speaking as one of the most experienced of Eastern travellers of the present day, he is of opinion that it would greatly facilitate the study of Oriental languages by Englishmen and simplify the representation of the vernacular languages. He has therefore offered to the author his assistance in adapting the alphabet and rules of "Compendious Shorthand" to Hindustani, Persian, Arabic, and Turkish.

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